# COURSE DESCRIPTION
# DESIGN OF STRUCTURAL SYSTEMS

# SSD: TECNOLOGIA DELL'ARCHITETTURA (ICAR/12)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: BELLOMO MARIANGELA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 15187 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI E TECNOLOGIA DEL RECUPERO EDILIZIO
MODULE: 09265 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Laboratorio di Costruzione dell'Architettura

### PREREQUISITES

No

### LEARNING GOALS

The integrated course Design of construction systems - Technology of Building Recovery, aims to provide principles, tools and methods to test the potential of technological innovation - process, design and product - in order to control the relationship between user needs, performance and technology.Consistent with the objectives of the Course of Study and with the training gained in previous years in the field of Architecture Technology, the teaching of Design of Construction Systems aims to:(a) understand criteria and use basic methodological tools necessary to develop a design of a construction system that is consistent with the design of the project and consistent with regulatory, quality and performance aspects(b) apply knowledge of specific construction

systems and make conscious use of methodological tools for project development(c) develop the capacity to independently analyze a project and evaluate its results in relation to technological and construction choices and context.(d) produce clearly and rigorously elaborated and graphic-descriptive documents.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must understand the role of technological innovation, as an intellectual and technical-constructive resource, in the elaboration of project proposals in response to the challenges of contemporaneity; to know the figurative, functional, constructive and environmental dimensions of the building systems. The training course aims to provide students with the basic knowledge and methodological tools necessary to develop a design of a constructive system that is consistent with the design of the project and consistent with the regulatory, quality performance and eco-sustainability aspects

**Applying knowledge and understanding**

The student must be able to relate user requirements, project design, production of systems and components, the conditions of the context with the choices related to techniques, materials and the way of conducting the implementation phases. The training course aims to provide students with the necessary operational skills to apply the knowledge of specific construction systems in practice and to make conscious use of the methodological tools for the development of the project.

## COURSE CONTENT/SYLLABUS

The Design Program for Constructive Systems is organized in such a way as to provide students with the theoretical knowledge and methodological tools necessary to deepen the many aspects that are involved in the design process of a constructive system: technical, functional, figurative, regulatory and environmental aspects, in relation to the geographical, climatic, social and more generally cultural context of reference. The challenges of climate change and the transformation of the design of spaces due to the COVID-19 pandemic require the discussion of topics that, with due regard to the goals of the 2030 Agenda and the actions of the European Green Deal, allow to develop a design of constructive system consistent with the design of the architecture project and consistent with the qualitative aspects of performance and eco-sustainability.The theoretical lessons include the treatment of steel, wood and reinforced concrete construction systems, emphasizing the characteristics associated with their evolution and illustrating the innovations introduced by the latest research and experimentation. The following topics are also discussed:- architecture, climate and energy;- from the concept of closure to the concept of building envelope;- Innovation, eco-sustainability and user welfare;- Adaptive use of infrastructure and industrial objects in architecture;- the digital shift and architecture.

## READINGS/BIBLIOGRAPHY

M. Bellomo, A. D’Agostino, *Sfide e temi tra tecnologie innovative e network di paesaggi*, Altralinea, Firenze, 2020

A. Claudi de Saint Mihiel, M. Bellomo M (a cura di), *Progettazione tecnologica per nearly zero energy building in clima mediterraneo*, Clean, Napoli, 2018
A. Claudi de Saint Mihiel, A. Falotico (a cura di), *Verso la Open Green Innovation*, Maggioli editori, Santarcangelo di Romagna, 2018
M.C. Torricelli, A. Del Nord, P. Felli, *Materiali e Tecnologie dell'architettura*, Laterza, Bari, 2006
F. Tucci, *Costruire e abitare green*, Altralinea edizioni, Firenze, 2018

## TEACHING METHODS OF THE COURSE (OR MODULE)

The didactics include a series of lectures with which the basic content is systematized (35% of the total hours); design exercise of a wooden or steel artifact (40% of the total hours); some communications, on specific topics, held by experts of the different themes (15% of the total hours); joint meetings with the teacher of the Building Recovery course with which the Building Systems Design course is integrated (10% of the total hours).

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

The final evaluation will take into account 50% of the results obtained in the "Design of construction systems" course and 50% of the outcome of the integrated course "Building restoration technology".

# COURSE DESCRIPTION
# DESIGN OF STRUCTURAL SYSTEMS

# SSD: TECNOLOGIA DELL'ARCHITETTURA (ICAR/12)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 15187 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI E TECNOLOGIA DEL RECUPERO EDILIZIO
MODULE: 09265 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Laboratorio di Costruzione dell'Architettura

### PREREQUISITES

None

### LEARNING GOALS

*The Building Systems Design course is embedded in the Architectural Technology program and in the Course of Study; the teaching aims to:*
*a) understanding of methodology to develop a building system according with the essence of the architectural design, with the technological performances and with the regulations in force.*
*b) apply knowledge of specific building systems and consciously use methodological tools for project development*
*c) mature the ability to independently analyze a project and evaluate its results in relation to technological-constructive choices and context*

*d) produce graphical-descriptive drawings and documents with clarity and rigor.*

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

*Students understand the role of technological innovation, as an intellectual and technical-constructive resource, in the development of architectural projects that take up the contemporary challenges; they must know the figurative, functional, constructive and environmental questions of building systems. The course program aims to provide students with the basic knowledge and methodological tools needed to develop a construction system design suitable with the concept of the architectural project, technological and eco-sustainability needs and compliant with the regulations in force.*

**Applying knowledge and understanding**

*The student must be able to relate the needs of the users, the design concept, the production of systems and components, and the conditions of the context to the choices regarding techniques, materials, and building process. The training aims to provide students with the skills necessary to concretely apply the knowledge of specific building systems and to consciously use the methodological tools for project development.*

## COURSE CONTENT/SYLLABUS

*Students will design  a construction system that uses digital fabrication techniques and is governed with the tools of computational design; then they applied them new knowledges in a concrete example. They will be asked to learn more about digital fabrication through the study of dedicated texts and then they will choose a technique that refer to “subtractive manufacturing” such as CNC milling machines or laser cutting. With the support of the teaching staff, the project will be developed with the tools of computational design useful for controlling the design process in all its phases and also useful for exercising the aptitude for “computational thinking”.*

## READINGS/BIBLIOGRAPHY

Pone S., Colabella S., Maker, La fabbricazione digitale per l’architettura e il design, Progedit, Bari 2017.
Baricco A., The games, Einaudi, Torino 2018.
Anderson C., Makers. Il ritorno dei produttori. Per una nuova rivoluzione industriale, Rizzoli Etas, Milano 2013.
Carpo M., The second Digital Turn. Design beyond intelligence, MIT Press, Cambridge (USA), 2017.

## TEACHING METHODS OF THE COURSE (OR MODULE)

*The course consists of:*
*- Taught classes (about 25 % of in due time) mainly dealing with issues related to the history of the progressive diffusion of “digital” in architectural design.*
*- Design exercises (about 75 % of in due time) aimed at delving into some typology of building systems and designing a new one. The second part is developed through the experiences made*

*during the analysis of some case studies.*

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

The final evaluation will be weighted 50 percent on the results obtained in the course "Design of Building Systems" and 50 percent on the outcome of the integrated course "Technology of Building Recovery."

# COURSE DESCRIPTION
# TECHNOLOGY OF BUILDING RENOVATION

# SSD: TECNOLOGIA DELL'ARCHITETTURA (ICAR/12)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 15187 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI E TECNOLOGIA DEL RECUPERO EDILIZIO
MODULE: 11328 - TECNOLOGIA DEL RECUPERO EDILIZIO
CHANNEL:
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Architectural Construction Laboratory

### PREREQUISITES

There are no prerequisites

### LEARNING GOALS

The integrated course Design of Building Systems –Technologies for the building regeneration, provides principles, tools and methods to experiment the potential of technological innovation - process, design and product - in order to control the relationship between user needs, performance and technologies. In line with the objectives of the study course and with the training gained in previous years, Technologies for the building regeneration course aims to:

a) acquire knowledge and know-how to use basic methodological tools for analyzing the potential of innovation in relation to technological choices;

b) identify interventions compatible with the preservation of material culture in compliance with the regulatory framework, resources and pre-existing constraints;
c) independently evaluate the regeneration processes of the built environment, with reference to maintenance, reuse and redevelopment strategies;
d) produce drawings and graphic-descriptive documents with clarity and rigor.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must understand the issues related to the built environment regeneration project; check the relationship between services and technologies to manage the life cycles of settlement systems and prefigure new ones, starting from the behaviour of the building and the conditions of use. The training course aims to provide students with the knowledge and basic methodological tools necessary - in the regeneration and maintenance project - to analyze the potential of innovation in relation to compatible technological choices.

**Applying knowledge and understanding**

The student must be able to identify, starting from the reading of architecture as a system, the interventions compatible with the conservation of the material culture, solve problems for the recognition of obsolescence and failure processes. The student must know-how to prefigure design scenarios, according to the needs of users, in compliance with the regulatory framework, resources and pre-existing constraints. The training course is aimed at transmitting the operational skills to concretely apply the knowledge in the project outcomes, evaluated along the life cycle of the existing with reference to the maintenance, adaptive reuse and redevelopment strategies.

## COURSE CONTENT/SYLLABUS

The teaching program of the course includes:
- the framing of the disciplinary field in the current scientific scenario;
- the knowledge of the principles, tools and strategies that govern the regeneration of settlement systems;
- the recognition of the conditions of obsolescence and failure for the construction of design alternatives;
- the definition of design scenarios according to the needs of users in respect of resources and constraints of the building;
- the control of the project outcomes, also in reference to the building life cycle and maintenance strategies.

## READINGS/BIBLIOGRAPHY

Caterina G. (2016), *Strategie innovative per il recupero delle città storiche*, Techne Journal of Technology for Architecture and Environment, 12/2016 Firenze University Press, Firenze, pp.33-35.

De Medici S., Pinto M.R.(2012), *Valorizzazione dei beni culturali pubblici e strategie di riuso,* Techne Journal of Technology for Architecture and Environment, 03/2012, Firenze University Press, Firenze 2012, pp. 140-147.
Gasparoli P., Talamo C. (2006), *Manutenzione e Recupero. Criteri, metodi e strategie per l'intervento sul costruito*, Alinea, Firenze; selezione di capitoli.
Pinto M.R. (Ed) (2019), *Coordinare le conoscenze per la manutenzione del patrimonio culturale. Knowledge management for cultural heritage maintenance*, CLEAN Edizioni, Napoli.
Pinto M.R. (2004), *Il Riuso Edilizio. Procedure, metodi ed esperienze*, UTET Libreria, Torino; Cap. 4: pp. 87-101, 134-140.
Viola S., Diano D. (2019), *Repurposing the Built Environment: Emerging Challenges and Key Entry Points for Future Research*, Sustainability, 11(17), 46-69; https://doi.org/10.3390/su11174669
Refer to Wikitecnica.com for the following definitions:
"RECUPERO" di Gabriella Caterina al link http://www.wikitecnica.com/recupero-tecnologia/
"RIUSO EDILIZIO" di Maria Rita Pinto al link http://www.wikitecnica.com/riuso-edilizio/
"MANUTENZIONE, PIANO DI" di Vittorio Fiore al link http://www.wikitecnica.com/manutenzione-piano-di/
During the course of the lectures, references for each topic covered and in-depth bibliographical references will be provided in detail.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The course is divided into theoretical lessons and classroom exercises to outline the theoretical approaches dealt with and to experiment with fault diagnosis strategies and design of new performance levels compatible with the pre-existing. The teacher will use: a) frontal lessons for about 50% of the total hours; b) exercises to practically deepen theoretical aspects for approx. 12 hours; c) joint meetings with the teacher of the Design of Building Systems course with which the course is integrated for approx. 10% of the total hours; d) seminars to explore specific topics for approx. 3 hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☑ Other : The evaluation of the results consists in an interview on the topics covered in the theoretical lessons and in the discussion of the project developed in the classroom. The evaluation will be aimed at verifying the student's acquisition of knowledge of regeneration principles, tools and strategies to ensure the feasibility of the intervention. The student must have acquired knowledge and ability to control the variables that guide the technological choices in the regeneration and maintenance project, in relation to the state of the efficiency and user needs.

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The final evaluation will take into account 50% of the results obtained in the Technologies for the building regeneration course and 50% of the outcome of the integrated Design of Building Systems course. The final grade will be weighted on the CFU of each course and therefore composed as follows: Technologies for the building regeneration Module 4CFU-50%, Design of Building Systems Module 4CFU-50%.

# COURSE DESCRIPTION
# TECHNOLOGY OF BUILDING RENOVATION

# SSD: TECNOLOGIA DELL'ARCHITETTURA (ICAR/12)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 15187 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI E TECNOLOGIA DEL RECUPERO EDILIZIO
MODULE: 11328 - TECNOLOGIA DEL RECUPERO EDILIZIO
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Architecture Construction Laboratory

### PREREQUISITES

There are no prerequisites

### LEARNING GOALS

The integrated course Design of Building Systems - Building Recovery Technology, provides principles, tools and methods to experiment the potential of technological innovation - process, design and product - in order to control the relationship between user needs, performance and technologies.
In line with the objectives of the study course and with the training gained in previous years, the Building Recovery Technology course aims to:
a) acquire knowledge and know how to use basic methodological tools necessary to analyze the potential of innovation in relation to technological choices;

b) identify interventions compatible with the preservation of material culture in compliance with the regulatory framework, resources and pre-existing constraints;
c) independently evaluate the recovery processes of the built environment, with reference to maintenance, reuse and rehabilitation strategies;
d) produce drawings and graphic-descriptive documents with clarity and rigor.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must understand the issues related to the built environment recovery project; check the relationship between services offered and technologies to manage the life cycles of settlement systems and prefigure new ones, starting from the relationships between the behaviour of the building and the conditions of use. The training course aims to provide students with the knowledge and basic methodological tools necessary - in the recovery and maintenance project - to analyze the potential of innovation in relation to compatible technological choices.

**Applying knowledge and understanding**

The student must be able to identify, starting from the reading of architecture as a system, the interventions compatible with the conservation of the material culture, solve problems for the recognition of obsolescence and failure processes. The student must know how to prefigure design scenarios, according to the needs of users, in compliance with the regulatory framework, resources and pre-existing constraints. The training course is aimed at transmitting the operational skills to concretely apply the knowledge in the project outcomes, evaluated along the life cycle of the existing with reference to the maintenance, reuse and rehabilitation strategies.

## COURSE CONTENT/SYLLABUS

The teaching program of the course includes:
- the framing of the disciplinary field in the current scientific scenario;
- knowledge of the principles, tools and strategies that govern the recovery actions of settlement systems;
- the recognition of the conditions of obsolescence and failure for the construction of design alternatives;
- the definition of design scenarios according to the needs of users in respect of resources and constraints of the existing building;
- the control of the project outcomes, also in reference to the building life cycle and maintenance strategies.

## READINGS/BIBLIOGRAPHY

Viola, S; Ul Abedin, Z. (2021), *Cultural and creative industries. Technological innovation for the built environment* La Scuola di Pitagora, Napoli.
Pinto M.R.; Diano D., (2020) *Reti Ferroviarie e valorizzazione dei territori. Recupero, manutenzione e innovazione delle stazioni*, La scuola di Pitagora, Napoli.

Viola S., Diano D. (2019), *Repurposing the Built Environment: Emerging Challenges and Key Entry Points for Future Research*, Sustainability, 11(17), 46-69; https://doi.org/10.3390/su11174669.
Caterina G. (2016), *Strategie innovative per il recupero delle città storiche*, Techne Journal of Technology for Architecture and Environment, 12, Firenze University Press, Firenze.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The course is divided into theoretical lessons and classroom exercises to outline the theoretical approaches dealt with and to experiment with fault diagnosis strategies and design of new performance levels compatible with the pre-existing. The teacher will use: a) frontal lessons for about 50% of the total hours; b) exercises to practically deepen theoretical aspects for approx. 12 hours; c) joint meetings with the teacher of the Design of Building Systems course with which the course is integrated for approx. 10% of the total hours; d) seminars to explore specific topics for approx. 3 hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☐ Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The final evaluation will take into account 50% of the results obtained in the Building Recovery Technology course and 50% of the outcome of the integrated Design of Building Systems course. The final grade will be weighted on the CFU of each course and therefore composed as follows: Building Recovery Technology Module 4CFU-50%, Design of Building Systems Module 4CFU-50%.

# COURSE DESCRIPTION
# TECHNOLOGY OF BUILDING RENOVATION

# SSD: TECNOLOGIA DELL'ARCHITETTURA (ICAR/12)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 15187 - PROGETTAZIONE DEI SISTEMI COSTRUTTIVI E TECNOLOGIA DEL RECUPERO EDILIZIO
MODULE: 11328 - TECNOLOGIA DEL RECUPERO EDILIZIO
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Architectural Construction Laboratory

### PREREQUISITES

There are no prerequsites

### LEARNING GOALS

The integrated course Design of Building Systems - Technologies for the building regeneration, provides principles, tools and methods to experiment the potential of technological innovation - process, design and product - in order to control the relationship between user needs, performance and technologies. In line with the objectives of the study course and with the training gained in previous years, Technologies for the building regeneration course aims to:
a) acquire knowledge and know-how to use basic methodological tools for analyzing the potential of innovation in relation to technological choices;
b) identify interventions compatible with the preservation of material culture in compliance with the

regulatory framework, resources and pre-existing constraints;
c) independently evaluate the regeneration processes of the built environment, with reference to maintenance, reuse and redevelopment strategies;
d) produce drawings and graphic-descriptive documents with clarity and rigor.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must understand the issues related to the built environment regeneration project; check the relationship between services and technologies to manage the life cycles of settlement systems and prefigure new ones, starting from the behaviour of the building and the conditions of use. The training course aims to provide students with the knowledge and basic methodological tools necessary - in the regeneration and maintenance project - to analyze the potential of innovation in relation to compatible technological choices.

**Applying knowledge and understanding**

The student must be able to identify, starting from the reading of architecture as a system, the interventions compatible with the conservation of the material culture, solve problems for the recognition of obsolescence and failure processes. The student must know-how to prefigure design scenarios, according to the needs of users, in compliance with the regulatory framework, resources and pre-existing constraints. The training course is aimed at transmitting the operational skills to concretely apply the knowledge in the project outcomes, evaluated along the life cycle of the existing with reference to the maintenance, adaptive reuse and redevelopment strategies.

## COURSE CONTENT/SYLLABUS

The teaching program of the course includes:
- the framing of the disciplinary field in the current scientific scenario;
- the knowledge of the principles, tools and strategies that govern the regeneration of settlement systems;
- the recognition of the conditions of obsolescence and failure for the construction of design alternatives;
- the definition of design scenarios according to the needs of users in respect of resources and constraints of the building;
- the control of the project outcomes, also in reference to the building life cycle and maintenance strategies.

## READINGS/BIBLIOGRAPHY

Caterina G. (2016), Strategie innovative per il recupero delle città storiche, Techne Journal of Technology for Architecture and Environment, 12/2016 Firenze University Press, Firenze, pp.33-35.
De Medici S., Pinto M.R.(2012), Valorizzazione dei beni culturali pubblici e strategie di riuso, Techne Journal of Technology for Architecture and Environment, 03/2012, Firenze University Press, Firenze 2012, pp. 140-147.

Gasparoli P., Talamo C. (2006), Manutenzione e Recupero. Criteri, metodi e strategie per l'intervento sul costruito, Alinea, Firenze; selezione di capitoli.
Pinto, M.R.; Viola, S.; Onesti, A.; Ciampa, F. (2020). Artists Residencies, Challenges and Opportunities for Communities' Empowerment and Heritage Regeneration. SUSTAINABILITY, vol. 12, p. 1-20, ISSN: 2071-1050, doi: 10.3390/su12229651
Pinto M.R. (Ed) (2019), Coordinare le conoscenze per la manutenzione del patrimonio culturale. Knowledge management for cultural heritage maintenance, CLEAN Edizioni, Napoli.
Pinto M.R. (2004), Il Riuso Edilizio. Procedure, metodi ed esperienze, UTET Libreria, Torino; Cap. 4: pp. 87-101, 134-140.
Viola S., Diano D. (2019), Repurposing the Built Environment: Emerging Challenges and Key Entry Points for Future Research, Sustainability, 11(17), 46-69; https://doi.org/10.3390/su11174669
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"RIUSO EDILIZIO" di Maria Rita Pinto al link http://www.wikitecnica.com/riuso-edilizio/
"MANUTENZIONE, PIANO DI" di Vittorio Fiore al link http://www.wikitecnica.com/manutenzionepiano-di/
During the course of the lectures, references for each topic covered and in-depth bibliographical references will be provided in detail.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The course is divided into theoretical lessons and classroom exercises to outline the theoretical approaches dealt with and to experiment with fault diagnosis strategies and design of new performance levels compatible with the pre-existing. The teacher will use: a) frontal lessons for about 50% of the total hours; b) exercises to practically deepen theoretical aspects for approx. 12 hours; c) joint meetings with the teacher of the Design of Building Systems course with which the course is integrated for approx. 10% of the total hours; d) seminars to explore specific topics for approx. 3 hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☑ Other : The evaluation of the results consists in an interview on the topics covered in the theoretical lessons and in the discussion of the project developed in the classroom. The evaluation will be aimed at verifying the student's acquisition of knowledge of regeneration principles, tools and strategies to ensure the feasibility of the intervention. The student must have acquired knowledge and ability to control the variables that guide the technological choices in the regeneration and maintenance project, in relation to the state of the efficiency and user needs.

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The final evaluation will take into account 50% of the results obtained in the Technologies for the building regeneration course and 50% of the outcome of the integrated Design of Building Systems course. The final grade will be weighted on the CFU of each course and therefore composed as follows: Technologies for the building regeneration Module 4CFU-50%, Design of Building Systems Module 4CFU-50%.

# COURSE DESCRIPTION
# ARCHITECTURAL AND URBAN COMPOSITION STUDIO 4

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: PISCOPO CARMINE
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27186 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 8

### REQUIRED PRELIMINARY COURSES

**Architectural and Urban Composition Studio 3/ Landscape Architecture**

### PREREQUISITES

Nothing

### LEARNING GOALS

The Architectural and Urban Composition Studio 4 provides the cultural and technical tools of architectural and urban composition to develop an urban transformation project. The goal is to acquire a critical ability to interpret the demand for urban transformation for its transcription in architectural terms.
At the end of the course the students have to demonstrate:
to know materials and tools (also in relation to the "Lettura Morfologica" (Morphological Reading module) integrated in the Studio 4 that are the basis of the architectural project and its various articulations related to the themes of contemporary urban transformation;

to have understood the relationship between architectural and urban design themes and community issues;
to be aware of the need to consider the social, economic, political, environmental aspects, among the elements that define architectural and cultural projects;
to have critical skills in interpreting the demand for architecture and in the development of a project that makes explicit the relationships between architectural space and urban space through a detailed composition, distribution and construction at different scales;
to know how to use programs, tools and techniques in order to draw up documents of different types and at different scales from the urban one, to that of detail (bi-dimensional and 3d drawings, diagrams, collages, models, etc.).

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

Students have to demonstrate knowledge and understanding of the processes that drive contemporary architectural and urban transformation. They have to respond to the problems of the case study, they also have to thematize and guide the actions of knowledge, research, reading to build the architectural project. They have to demonstrate that they have an ability to show the acquired knowledge and all phases of the work carried out, highlighting the individual contribution and that of collective work.  The course activities provide the cultural and technical tools of architectural and urban composition to develop an urban transformation project.

**Applying knowledge and understanding**

Students have to return with the use of technical tools an autonomous interpretation of the project application that takes into account the complexity of the issues addressed in the preliminary phase of the work. They have to be able to identify the main themes of the project, also through similar case studies. Students have to demonstrate the ability to develop a specific project that explains the relationships between architectural space and urban space through a compositional, distributive and constructive articulation at different scales. And at the same time, they have to demonstrate the ability to identify and explain the methodological aspects that can be extended to other cases. The training course is aimed at transmitting the operational skills necessary to synthesize the different aspects that make up the project and aimed at fostering the ability to use different techniques of representation and description of the project.

## COURSE CONTENT/SYLLABUS

the Architectural and Urban Composition Studio 4 allows students to develop an urban transformation project starting from the reading and identification of a project area, from the recognition of the values inherent in the place and from the definition of the logic that govern its modifiability. In the first part of the course, the theoretical issues that underlie the themes presented will be addressed. Within this path, examples will be illustrated, with particular reference to places, studies and significant figures, who have developed research and experiences of the urban project within a systematic framework. The course is marked by various moments of verification connected to the presentation / identification of the work topic; the construction of

references and their role in the compositional process; the morphological reading and construction of the project area; the definition of the architectural project; to the return of what is defined, through graphic and / or multimedia drawings (ppt, video etc ..). The course gives considerable importance to the reading and identification of the compositional structure of the area, together with the critical understanding of the complex dynamics, including social and economic policies that run through it, as an operation with a strong design value, from which the materials will be deduced of the urban composition.

## READINGS/BIBLIOGRAPHY

Bibliographic informations will be provided during the lessons of the course. Much of the teaching material will be built together with the students during the course, to allow for a continuous comparison and debate on the topics that will be addressed.

## TEACHING METHODS OF THE COURSE (OR MODULE)

At the center of the Course is laboratory activity which represents the largest percentage of total hours: the 30% of the course is structured by lectures, punctually alternated with a series of exercises carried out in the form of ex-tempore in the classroom, and some exercises that students develop at home. Part of the hours are used to discuss in the classroom, always in collegial form, the documents produced during the exercises. Some lessons can be held on a digital platform and recorded.

## EXAMINATION/EVALUATION CRITERIA

**b) Evaluation pattern**

The final exam consists of an exhibition of the work carried out and an interview aimed at verifying the understanding of the topics covered, in relation to the theme of the Course and the specific disciplinary. The evaluation of the students will also take into account their overall participation and presence in the course.

# COURSE DESCRIPTION
# ARCHITECTURAL AND URBAN COMPOSITION STUDIO 4

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27186 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 8

### REQUIRED PRELIMINARY COURSES

LABORATOTIO DI COMPOSIZIONE ARCHITETTONICA 3 –ARCHITETTURA DEL PAESAGGIO

### PREREQUISITES

NESSUNO

### LEARNING GOALS

The 4th year Architectural and Urban Composition Laboratory aims to provide students with the specialized cultural and technical tools of architectural and urban composition in order to confront a concrete urban transformation design. It also benefits from the integrative contribution of the Morphological Reading course. The expected result is the acquisition by the student of a critical and in-depth ability to interpret the transformation demand for its transcription into architectural terms.
At the end of the teaching the student will have to:

- know materials and cultural and technical tools (also in relation to the contents of the morphological reading module integrated with the laboratory) that underlie architectural design and its various articulations related to the themes of contemporary urban transformation;
- demonstrate awareness of the close relationship that links identification of architectural and urban design issues with community instances;
- be aware of the need to consider aspects arising from social, economic, political, environmental processes among the elements that guide the design development of architectures, cities and territories;
- demonstrate critical capacity in the interpretation of the demand and in the elaboration of a project that makes explicit the relationships between architectural space and urban space through a compositional, distributive and constructive articulation developed at different scales;
- know how to use programs, tools and techniques in order to draw up products of different type and at different scales from the urban one to the detailed one (two- and three-dimensional elaborations, schemes, diagrams, collages, models, etc.)
- be aware that the different levels of complexity introduced in the laboratory constitute an advancement of knowledge and skills acquired in the architectural and urban composition laboratories of the previous years and open to the didactic articulation of the final year synthesis Laboratory.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of the processes that drive contemporary architectural and urban transformation. He/she must make him/herself an interpreter of the proposed project demand for the area under study in order to thematize and direct the actions of knowledge, research, reading and interpretation underlying the design development. The student must demonstrate understanding and ability to shape through the tools of architecture and urban design the compositional, distributive and constructive aspects of architecture at different scales. He/she must demonstrate critical ability to elaborate and present the acquired knowledge and all the phases of the work done by emphasizing the individual contribution and that of the collective work in accordance to the didactic organization of the laboratory. The specialized training of the laboratory aims to provide the student with the cultural and technical tools proper to architectural and urban composition in order to deal with a concrete project of transformation also through the integration with the morphological reading module.

**Applying knowledge and understanding**

The student must return through the elaboration of drawings and models, an autonomous interpretation of the project demand that takes into account the complexity of the issues addressed in the cognitive and investigative phase of the work. He/she must be able to return the main themes of the design work also mentioning similar references, projects and cases, and communicate the architectural project in its articulations demonstrating awareness of the processes that determined it. The student must demonstrate the ability to elaborate a specific project that explicates the relationships between architectural space and urban space through in-depth compositional, distributive and constructive articulation at different scales. At the same time,

he or she must demonstrate the ability to identify and explain methodological aspects that can be extended to other cases. The student must be able to apply the operational skills necessary to synthesize the different aspects that inform the design process and use different representation and descriptive techniques of the design work.

## COURSE CONTENT/SYLLABUS

The Architectural and Urban Composition Laboratory 4B in recent years has addressed the relationship between architecture and the city by experimenting with methodologies and ways of intervening in contexts and fabrics of the historic European city, a privileged field of study and verification of ideas developed from a common denominator: designing to continue the city. In a.a. 2022/23, students will work in Naples and address the theme of the redevelopment of the Monumental Complex "Ex Convento Gesù delle Monache," located near one of the city gates and included between two major urban arteries: via Foria and via Duomo. The project will address the rehabilitation, enhancement and re-functionalization of the complex, considering the whole of the built and open spaces, providing new spaces for training to serve the students of the Fine Arts Academy of Naples.

## READINGS/BIBLIOGRAPHY


Ferraro, I. *Atlante della città storica. Centro antico. Seconda edizione*, Oikos edizioni, Napoli, 2017
Focillon. H. *Vita delle forme seguito da Elogio della mano*, Piccola Biblioteca Einaudi, Torino, 2002
Frampton, K. *Tettonica e architettura: poetica della forma architettonica nel XIX e XX secolo*, Skira, Milano, 2005
Izzo, F. *Progetto scuola e mestiere*, Paparo edizioni, Napoli 2012
Martí Arís, C. *La centina e l'arco. Pensiero, teoria, progetto in architettura*, Marinotti Edizioni, Milano, 2007
Merleau-Ponty, M. *Fenomenologia della percezione*, Bompiani, Milano, 2003
Moneo, R. *La solitudine degli edifici e altri scritti vol. 2*, Umberto Allemandi &C., Torino, 2004
Pallasmaa, J. *La Mano che pensa. Saggezza esistenziale e incarnata nell'architettura*, Safarà Editore, Pordenone 2014
Quaroni, L. *Progettare un edificio: otto lezioni di architettura*, Mazzotta, Milano, 1977
Sennett, R. *L'uomo artigiano*, Feltrinelli, Milano, 2012
Sennett, R. *Costruire e abitare: Etica per la città*, Feltrinelli, Milano, 2020
Zumthor, P. *Atmosfere: ambienti architettonici*, Electa, Milano, 2007
Zumthor, P. *Pensare Architettura*, Mondadori Electa, Milano 2003


## TEACHING METHODS OF THE COURSE (OR MODULE)

The first part of the Laboratory will be structured through a series of face-to-face lectures approaching the topic that will address both theoretical aspects and more operational directions to be developed in the project. Through weekly reviews and critiques with internal and external faculty, the Laboratory will be structured as a place for dialogue where strategies and principles capable of developing and taking shape in architectural projects can be verified. In addition to the drawings, critical analysis and oriented research conducted in the integrated morphological

reading module, large models at the urban scale will represent a first moment of study and verification of settlement strategies that will be verified and developed to investigate relationships, proportions and details in building spaces both through the composition of architectural elements and through the study of materials and light. The Laboratory encourages and supports as much as possible the use of drawing, the use of the physical model and photography as tools for learning to see, to understand, to build and, therefore, to communicate the project.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

After an intermediate critique to check the progress of the project and a final critique in the last week of the course, the examinations will be conducted through a narrative and verification of the design research, highlighting connections and insights made in the integrated morphological reading module, and through a presentation of the final project through explanatory tables and models. The outcomes of the critiques will contribute to the final evaluation. The final assessment will be weighted on the CFU of Architectural and Urban Composition Laboratory 4 (8 CFU) and the Morphological Reading module (4 CFU).

# COURSE DESCRIPTION
# ARCHITECTURAL AND URBAN COMPOSITION STUDIO 4

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27186 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 8

### REQUIRED PRELIMINARY COURSES

*Laboratory of Architectural and Urban Composition 3 / Landscape Architecture*

### PREREQUISITES

*None*

### LEARNING GOALS

*The course consists of a theoretical part on how to read a morphological context, with particular reference to physical and architectural values, and a practical part applied to the re-presentation of the architecture of the project area. This double reflection is developed in continuity with the tradition of Italian rationalism which, in the description of physical reality, combines the perceptual data with that of memory.*

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

*At the end of the course, the student must:*

*- know cultural and technical materials and tools (also in relation to the contents of the morphological reading module integrated in the laboratory) which are the basis of the architectural project and its various articulations linked to the themes of contemporary urban transformation;*

*- demonstrate that they have acquired awareness of the close relationship that binds the identification of architectural and urban design themes and issues of the community;*

*- be aware of the need to consider the aspects deriving from social, economic, political, environmental processes, among the elements that guide the design development of architectures, cities and territories;*

*- demonstrate critical skills in the interpretation of the question and in the development of a project that makes explicit the relationships between architectural space and urban space through an in-depth compositional, distributive and constructive articulation at different scales;*

*- know how to use programs, tools and techniques in order to draw up documents of different types and at different scales from the urban one to the detailed one (two-dimensional and three-dimensional drawings, diagrams, diagrams, collages, models, etc.);*

*- be aware that the different levels of complexity introduced in the laboratory constitute an advancement of knowledge and skills acquired in the architectural and urban composition laboratories of previous years and open to the didactic articulation of the final synthesis laboratory.*

*FURTHER EXPECTED LEARNING RESULTS, in relation to:*

*Autonomy of judgment: The student must act as an active interlocutor demonstrating that he is able to autonomously interpret themes and places under study. You must demonstrate that you are able to carry out research and experiments independently and also that you can understand and critically judge the accuracy or any gaps. You must be able to interact not only with the teacher but also with fellow students for building and sharing knowledge and projects.*

*Communication skills: In the context of moments of confrontation with other teachers and students outside the laboratory or with other subjects outside the University invited to present and / or discuss themes and places of the project, the student must be able to explain the methodological approach and must be able to present papers, even in a form not yet completed, in a clear and concise manner.*

*Learning ability: The student must be able to update or broaden their knowledge by independently drawing on texts and articles on topics similar to those addressed in the laboratory and carrying out research on projects and case studies of particular interest in relation to the project being developed. The student must be able to identify, within the wide range of events organized by DiARC, but also expanding the outward look, seminars, conferences, workshops to take part in to deepen the themes of the project addressed in the laboratory or to experience knowledge and acquired methodologies. During the course of the laboratory, the teacher organizes and / or proposes to students discussions with other teachers and students or with external subjects whose contribution can broaden the field of investigation and knowledge or, again, suggests autonomous participation in initiatives of particular interest. with respect to the topics covered in the laboratory.*

**Applying knowledge and understanding**

**Knowledge and understanding.** *The student must demonstrate knowledge and understanding of the processes that guide contemporary architectural and urban transformation. You must be the interpreter of the project application proposed for the area under study to thematize and guide the actions of knowledge, research, reading and interpretation at the basis of the design process. Must demonstrate critical ability to show the knowledge acquired and all phases of the work carried out, highlighting the individual contribution and that of the collective work of the didactic organization of the laboratory. The training course of the laboratory aims to provide the student with the cultural and technical tools of architectural and urban composition to tackle a concrete transformation project also through integration with the morphological reading module.*

**Applying knowledge and understanding.** *The student must return with the use of various techniques an autonomous interpretation of the project application that takes into account the complexity of the issues addressed in the preliminary phase of the work. You must be able to identify the main themes of the project also through the study of references, projects and similar cases, and the reference to possible processes, phases and actors. The student must demonstrate the ability to develop a specific project that explains the relationships between architectural space and urban space through a detailed composition, distribution and construction at different scales. And at the same time, you must demonstrate the ability to identify and explain the methodological aspects that can be extended to other cases. The training course is aimed at transmitting the operational skills necessary to synthesize the different aspects that inform the project and to foster the ability to use different techniques of representation and description of the project.*

## COURSE CONTENT/SYLLABUS

*The main training objective that we intend to pursue is the architectural design experimentation applied to the Stratified City of Naples and its twelve historic districts, through the application of the seven new paradigms of contemporary architecture: 1) Zero soil consumption - bio remedation; 2) Building on the built - leaving nature time to react; 3) Bio-climatic architecture that produces energy rather than consuming it; 4) Architecture and Nature - architecture as a prosthesis of nature; 5) Cooperation between constellations of cities as opposed to competition between metropolises - decentralization versus densification of metropolitan areas; 6) Flexibility and reversibility of architecture with the use of recyclable materials - reuse and prudent recovery; 7) New ethics of architecture for social cohesion. The new seven paradigms of contemporary architecture constitute the current evolution of Bruno Zevi's thought on the seven invariants of modern architecture illustrated in the text "The modern language of architecture. Guide to the anticlassical code" published in 1984. The design experimentation will be based on the morphological reading of the design theme chosen in its relationship with the urban context and on the historical stratification and building chronology of the pre-existing elements, both in the built and in the non-built parts. The results that we intend to pursue will demonstrate that the starting theoretical paradigms are compatible with the needs of recovery and reuse for contemporary functions of the places and heritage of the Stratified City.*

## READINGS/BIBLIOGRAPHY

- Buondonno E., 2020, Climate Changings: New Paradigms of Contemporary Architecture in *New Metropolitan Perspectives, Knowledge Dynamics and Innovation-driven Policies Towards Urban and Regional Transition Volume 2*. Ed. Springer Nature, Switzerland AG 2021. Online ISBN: 978-3-030-48279-4; Print ISBN: 978-3-030-48278-7.
- Buondonno E., 2019, Piccoli borghi d'Italia, Valorizzazione della Balzana a Santa Maria La Fossa in Terra di Lavoro, Editore Doppiavoce, Napoli. ISBN 978-88-89972-84-7.
- Buondonno E., 2012, La Città Stratificata di Ercolano, Editore Doppiavoce, Napoli. ISBN: 978-88-89972-3.
- Buondonno E., 2010, Napoli e il Centro Storico. Il cuore della terza metropoli italiana al centro del Mediterraneo in Nàpoles: Escenas detràs de la escena. Encuentros sobre Arquitectura, Cine, Filosofìa y Teatro. Sb Editorial, Buenos Aires. ISBN: 978-987- 1256-73-0.
Further bibliographical and documentary indications will be proposed during the Laboratory.

## TEACHING METHODS OF THE COURSE (OR MODULE)

*The 4C Architectural Composition Laboratory Course is divided into theoretical lectures, some carried out in synergy with parallel laboratories, practical-applicative exercises and in-depth seminars on various aspects of architectural and urban composition and design, specifically related to the field of Stratified City of Naples. The lectures, seminars, exercises and progress checks of the project documents will take place mainly in a collective form until the end of the course scheduled for the month of December; the further laboratory activities, with the revisions of the project documents, will continue in the following months with a conclusion in the first week of March for the carrying out of the exams. The project activities include phases of cartographic, iconographic and bibliographic investigations to be carried out in October, preliminary planning to be carried out in November and definitive investigations to be carried out in December. During the course there will be scientific days of a national nature with the Neapolitan Coordination Women in Science, on the occasion of the Scientific Week of Planet Earth, and the programming of the Geo-event, with visits to Neapolitan archaeological sites; the European Night of Scientific Research 2022 and the Future Remote event.*

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☐ Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers

☐ Numerical exercises

**b) Evaluation pattern**

*The final evaluation will be weighted on the credits of the Architectural and Urban Composition Laboratory 4 (8 credits) and of the Morphological Reading module (4 credits).*

# COURSE DESCRIPTION
# ARCHITECTURAL AND URBAN COMPOSITION STUDIO 4

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27186 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4
CHANNEL: 04 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 8

### REQUIRED PRELIMINARY COURSES

Architectural And Design Studio 3 –Landscape Architecture

### PREREQUISITES

None

### LEARNING GOALS

The 4th year Architectural and Urban Composition Laboratory aims to provide students with the specialized cultural and technical tools of architectural and urban composition in order to confront a concrete urban transformation design. It also benefits from the integrative contribution of the Morphological Reading course. The expected result is the acquisition by the student of a critical and in-depth ability to interpret the transformation demand for its transcription into architectural terms. At the end of the teaching the student will have to: - know materials and cultural and technical tools (also in relation to the contents of the morphological reading module integrated with the laboratory) that underlie architectural design and its various articulations related to the themes

of contemporary urban transformation; - demonstrate awareness of the close relationship that links identification of architectural and urban design issues with community instances; - be aware of the need to consider aspects arising from social, economic, political, environmental processes among the elements that guide the design development of architectures, cities and territories; - demonstrate critical capacity in the interpretation of the demand and in the elaboration of a project that makes explicit the relationships between architectural space and urban space through a compositional, distributive and constructive articulation developed at different scales; - know how to use programs, tools and techniques in order to draw up products of different type and at different scales from the urban one to the detailed one (two- and three-dimensional elaborations, schemes, diagrams, collages, models, etc.) - be aware that the different levels of complexity introduced in the laboratory constitute an advancement of knowledge and skills acquired in the architectural and urban composition laboratories of the previous years and open to the didactic articulation of the final year synthesis Laboratory.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of the processes that drive contemporary architectural and urban transformation. He/she must make him/herself an interpreter of the proposed project demand for the area under study in order to thematize and direct the actions of knowledge, research, reading and interpretation underlying the design development. The student must demonstrate understanding and ability to shape through the tools of architecture and urban design the compositional, distributive and constructive aspects of architecture at different scales. He/she must demonstrate critical ability to elaborate and present the acquired knowledge and all the phases of the work done by emphasizing the individual contribution and that of the collective work in accordance to the didactic organization of the laboratory. The specialized training of the laboratory aims to provide the student with the cultural and technical tools proper to architectural and urban composition in order to deal with a concrete project of transformation also through the integration with the morphological reading module.

**Applying knowledge and understanding**

The student must return through the elaboration of drawings and models, an autonomous interpretation of the project demand that takes into account the complexity of the issues addressed in the cognitive and investigative phase of the work. He/she must be able to return the main themes of the design work also mentioning similar references, projects and cases, and communicate the architectural project in its articulations demonstrating awareness of the processes that determined it. The student must demonstrate the ability to elaborate a specific project that explicates the relationships between architectural space and urban space through in-depth compositional, distributive and constructive articulation at different scales. At the same time, he or she must demonstrate the ability to identify and explain methodological aspects that can be extended to other cases. The student must be able to apply the operational skills necessary to synthesize the different aspects that inform the design process and use different representation and descriptive techniques of the design work.

## COURSE CONTENT/SYLLABUS

In relation to the common theme of the Training Spaces, identified for the design laboratories for the academic year 2022/23, we will work on the development of design hypotheses for the redevelopment, enhancement and re-functionalization of the SS. Trinità delle Monache complex (former military hospital) in Naples. It is a big partially used publicly owned complex - consisting of buildings dating back to the seventeenth-century foundation, some twentieth-century additions and large open spaces - which, in an elevated position with respect to the ancient city center, is immediately north of the Quartieri Spagnoli and near the Montesanto interchange. The position, the characteristics of the architecture and the nature of the spaces give the former hospital the possibility of being a new centrality if reinterpreted through design actions that aim to reverse the path of abandonment and consider the demands and needs of extended communities. Through the study of the possible relationships between the citadel of the former hospital and the different parts of the city that surround it, we will work with the tools of the architectural and urban composition, to redefine the built spaces, the open spaces and the *limen*, to restore the complex to the city and the community. In particular, the spaces, existing and newly designed, will be designed to support innovative training activities (outdoors, workshops, etc.) and to support training activities related to the presence of other types of stakeholders (associations, artisans, artists, etc.). The cognitive phase will intertwine moments of theoretical lessons in the classroom with inspections that will also include a stay in the complex object of study and in the neighboring areas for carrying out activities such as: photographic jokes, sketches, interviews, etc. The application phase, strictly connected to the first, is aimed at deepening and putting into practice the knowledge and tools of architectural and urban composition through the elaboration of projects that in a widespread manner respond to the themes identified and represented at different scales, from that urban to architectural and detail.

## READINGS/BIBLIOGRAPHY

Bibliography will be provided during the lessons of the Laboratory. The search for reference texts and projects, but also for materials and contributions to knowledge of different types (films, photographs, websites, etc.), will also be an integral part of the laboratory work.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The first part of the course will be dedicated to framing the proposed theme in the dynamics of transformation of the contemporary city, to the knowledge of the project sites and to the conduct of lessons dedicated to the study of similar complexes to the one of interest in the laboratory, to analogies of the systems. urban, architecture and processes and projects of re-entry into urban dynamics. A specific study will be dedicated to understanding the fabric and social dynamics of the area study with particular reference to the school context and, in a broader sense to the cultural context, in order to identify possible innovative articulations of spaces for training in the complex of the SS. Trinity of the Nuns for Naples. The workshop is marked by moments of verification connected to the presentation / identification of the work topic; identifying references for the compositional process; the morphological reading and identification of the project area; the

definition of the architectural project and its return through graphic and / or multimedia drawings (ppt, video, etc.).

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

The final evaluation will be weighted on the credits of the Architectural and Urban Composition Laboratory 4 corresponding to 8 credits and of the Morphological Studies module corresponding to 4 credits.

# COURSE DESCRIPTION
# MORPHOLOGICAL READING

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27191 - LETTURA MORFOLOGICA
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Architectural and Urban Composition Studio 3/ Landscape Architecture

### PREREQUISITES

No prerequisites

### LEARNING GOALS

The teaching objective is to introduce students to the knowledge and the learning of the tools of morphological reading. The teaching aims to provide students with specialized theoretical notions on how to read a morphological context, with particular reference to physical and architectural values, and practical notions for the re-presentation of the architecture of the project area. This dual articulation is developed in continuity with the tradition proper to Italian studies in which, in the description of physical reality, the perceptive datum is combined with that of memory.
At the end of the teaching the student will have to:

- know the basic principles and the different declinations of Italian studies of morphological reading, which will be the subject of theoretical lectures in the course;
- demonstrate awareness of the close relationship that binds the construction of architecture and the construction of the city in different historical periods and with respect to different architectural typologies;
- have acquired ability to read and graphically render a morphological context, with particular reference to the physical values of a territory, a urban context and architectural types;
- demonstrate critical ability in the description of physical reality by combining the perceptive datum with those of history and memory;
- demonstrate understanding of the meaning of the link between the reading project and the architectural project;
- know how to use programs, tools and techniques of representation in order to produce drawings of different types and at different scales.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of theories and techniques of morphological reading. He/she must demonstrate critical ability in the graphic elaboration of readings of territories, cities and architectures as well as in the communication of the acquired knowledge and all the phases of the work carried out emphasizing the individual contribution and that of the collective work proper to the didactic organization of the reading module integrated with the architectural composition laboratory.
The training is geared toward conveying the operational skills necessary to develop morphological readings of architectures and cities and elaborate synthesis between the different aspects that inform design.

**Applying knowledge and understanding**

The student must be able to develop spatial, urban and architectural readings by responding to the themes of ex tempore assignments on contexts proposed for specific exercises and, at the same time, must be able to highlight the relationship between the reading of the context and the project demand proposed in the architectural and urban composition workshop.
He/She must be able to use different scales and different techniques of representation and must demonstrate the ability to identify and explain the methodological aspects of the operations performed.
The course of instruction aims to provide the student with the cultural and technical tools to know and elaborate morphological reading processes and link the reading project to the architectural project.

## COURSE CONTENT/SYLLABUS

The Morphological Reading module ("Lettura Morfologica") consists of a theoretical part on how to read a morphological context, with particular reference to its compositional structure, and a

practical part focused on the re-presentation of the “architecture” of the project area. The course gives considerable importance to the reading and identification of the compositional structure of the area, together with the critical understanding of the complex dynamics, including social and economic policies that run through it, as an operation with a strong design value, from which the materials will be deduced of the urban composition

## READINGS/BIBLIOGRAPHY

Bibliographic informations will be provided during the lessons of the course. Much of the teaching material will be built together with the students during the course, to allow for a continuous comparison and debate on the topics that will be addressed.

## TEACHING METHODS OF THE COURSE (OR MODULE)

At the center of the Course is laboratory activity which represents the largest percentage of total hours. The course is structured by lectures, alternated with a series of exercises carried out in the form of ex-tempore in the classroom, and some exercises that students develop at home. Part of the hours are used to discuss in the classroom, always in collegial form, the documents produced during the exercises. Some lessons can be held on a digital platform and recorded.

## EXAMINATION/EVALUATION CRITERIA

**b) Evaluation pattern**

# COURSE DESCRIPTION
# MORPHOLOGICAL READING

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: IZZO FERRUCCIO
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27191 - LETTURA MORFOLOGICA
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

LABORATOTIO DI COMPOSIZIONE ARCHITETTONICA 3 –ARCHITETTURA DEL PAESAGGIO

### PREREQUISITES

NESSUNO

### LEARNING GOALS

The teaching objective is to introduce students to the knowledge and the learning of the tools of morphological reading. The teaching aims to provide students with specialized theoretical notions on how to read a morphological context, with particular reference to physical and architectural values, and practical notions for the re-presentation of the architecture of the project area. This dual articulation is developed in continuity with the tradition proper to Italian studies in which, in the description of physical reality, the perceptive datum is combined with that of memory.
At the end of the teaching the student will have to:

- know the basic principles and the different declinations of Italian studies of morphological reading, which will be the subject of theoretical lectures in the course;
- demonstrate awareness of the close relationship that binds the construction of architecture and the construction of the city in different historical periods and with respect to different architectural typologies;
- have acquired ability to read and graphically render a morphological context, with particular reference to the physical values of a territory, a urban context and architectural types;
- demonstrate critical ability in the description of physical reality by combining the perceptive datum with those of history and memory;
- demonstrate understanding of the meaning of the link between the reading project and the architectural project;
- know how to use programs, tools and techniques of representation in order to produce drawings of different types and at different scales.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of theories and techniques of morphological reading. He/she must demonstrate critical ability in the graphic elaboration of readings of territories, cities and architectures as well as in the communication of the acquired knowledge and all the phases of the work carried out emphasizing the individual contribution and that of the collective work proper to the didactic organization of the reading module integrated with the architectural composition laboratory. The training is geared toward conveying the operational skills necessary to develop morphological readings of architectures and cities and elaborate synthesis between the different aspects that inform design.

**Applying knowledge and understanding**

The student must be able to develop spatial, urban and architectural readings by responding to the themes of ex tempore assignments on contexts proposed for specific exercises and, at the same time, must be able to highlight the relationship between the reading of the context and the project demand proposed in the architectural and urban composition workshop. He/She must be able to use different scales and different techniques of representation and must demonstrate the ability to identify and explain the methodological aspects of the operations performed. The course of instruction aims to provide the student with the cultural and technical tools to know and elaborate morphological reading processes and link the reading project to the architectural project.

## COURSE CONTENT/SYLLABUS

The Morphological Reading course in recent years has been concerned with possible ways of reading the complex phenomenon of the historic European city through the critical-interpretive analysis of its physical context, making explicit the relationship that exists between architecture and the city. In a.a. 2022/23, students will work in Naples and address the theme of the redevelopment of the Monumental Complex "Ex Convento Gesù delle Monache," located near one of the city gates and included between two major urban arteries: via Foria and via Duomo. The

Morphological Reading course will explore different aspects - morphological, spatial, urban - of this complex place where different ideas of the city coexist, discretizing distinctive and invariant features to be reinterpreted in the project.

## READINGS/BIBLIOGRAPHY


Ascolese, M.; Calderoni, A.; Cestarello, V. (a cura di). *Anaciclosi. Sguardi sulla città antica di Napoli*. Quodlibet, Macerata, 2017

Ferraro, I. *Atlante della città storica. Centro antico. Seconda edizione*, Oikos edizioni, Napoli, 2017

Eberle, D.Troeger, E. *Density &Atmosphere: On Factors relating to Building Density in the European City.* Birkhäuser, Basilea, 2015

Forty, A. *Parole e edifici. Un vocabolario per l'architettura moderna.* Pendragon, Bologna, 2004

Grassi, G. *La costruzione logica dell'architettura.* Marsilio, Venezia, 1967

Martí Arís, C. *Le variazioni dell'identità. Il tipo in architettura.* CittàStudi Edizioni, Torino, 1994

Pane, R. *Il centro antico di Napoli. Restauro urbanistico e piano di intervento.* Edizioni Scientifiche Italiane, Napoli, 1971

Rossi, A. *L'architettura della città.* Marsilio editori, Padova, 1966

Rossi, A. *Scritti scelti sull'architettura e la città*, *1956-1972.* Clup, Milano, 1975

Savarese, A. *Il centro antico di Napoli. Analisi delle trasformazioni urbane.* Electa Napoli, Napoli, 1991

Savarese, A. *Il centro antico di Napoli. Modelli ricostruttivi di palazzi.* Electa Napoli, Napoli, 2002

Sitte, C. *L'arte di costruire le città. L'urbanistica secondo i suoi fondamenti artistici*, Java Book, Milano, 1980

Quaroni, L. *La torre di Babele,* Marsilio, Venezia 1967

Tessenow, H. *Osservazioni elementari sul costruire*, Franco Angeli Editore, Milano, 1981

Zevi, B. *Saper vedere l'architettura.* Einaudi, Torino, 1948


## TEACHING METHODS OF THE COURSE (OR MODULE)

The Morphological Reading course will be structured in a first part consisting of a series of theoretical lectures that will introduce the different ways of reading and critically analyzing city spaces, in order to be able to draw indications and references to be transposed into design strategies and physical actions. In the second part of the course, starting from the topics presented in the frontal lectures, a series of case studies related to the theme addressed in the Laboratory course will be selected by investigating their morphological aspects, dimensional relationships and hierarchies in the physical context of reference through the exercise of photography, redrawing and construction of scale models that will represent the first constructed reference to be used as material for the project.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion

☐ Other

**In case of a written exam, questions refer to**

☐ Multiple choice answers

☐ Open answers

☐ Numerical exercises

**b) Evaluation pattern**

The final assessment will be weighted on the CFUs of Architectural and Urban Composition Laboratory 4 (8 CFU) and the Morphological Reading module (4 CFU).

# COURSE DESCRIPTION
# MORPHOLOGICAL READING

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27191 - LETTURA MORFOLOGICA
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

*Laboratory of Architectural and Urban Composition 3 / Landscape Architecture*

### PREREQUISITES

*None*

### LEARNING GOALS

*The course consists of a theoretical part on how to read a morphological context, with particular reference to physical and architectural values, and a practical part applied to the re-presentation of the architecture of the project area. This double reflection is developed in continuity with the tradition of Italian rationalism which, in the description of physical reality, combines the perceptual data with that of memory.*

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

*At the end of the course, the student must:*

*- know the fundamental principles and the different declinations of Italian morphological reading studies that will be the subject of theoretical lessons of the course;*

*- demonstrate that you have acquired awareness of the close relationship that binds the construction of architecture and the construction of the city in different historical periods and in relation to different architectural types;*

*- have acquired the ability to read and graphically restate a morphological context, with particular reference to the physical values of a territory, an urban layout and architectural typologies;*

*- demonstrate critical ability in the description of physical reality by combining the perceptual data with those of history and memory;*

*- demonstrate that you have understood the meaning of the link between the reading project and the architectural project;*

*- know how to use programs, tools and representation techniques in order to draw up documents of different types and at different scales.*

*FURTHER EXPECTED LEARNING RESULTS, in relation to:*

*Autonomy of judgment: The student must act as an active interlocutor demonstrating that he is able to autonomously interpret themes and places under study. He must demonstrate that he is able to carry out research and experiments independently and also that he can understand and critically judge the accuracy or any gaps. You must be able to interact not only with the teacher but also with fellow students for building and sharing knowledge, reading and projects.*

*Communication skills: In the context of moments of confrontation with other teachers and students outside the laboratory or with other subjects outside the University invited to present themes and places of the city, architecture and design, the student must be able to explain the methodological approach to reading morphological and must be able to present works even in a form not yet completed in a clear and concise manner.*

*Learning ability: The student must be able to update or expand their knowledge by independently drawing on texts and articles on topics similar to those addressed in the laboratory and carrying out research on territories, cities and architectures of particular interest with respect to the topics proposed during the course.*

**Applying knowledge and understanding**

**Knowledge and understanding.** *The student must demonstrate knowledge and understanding of morphological reading theories and techniques. Must demonstrate critical ability in the graphic rendering of readings of territories, cities and architectures as well as in the display of the acquired knowledge and of all the phases of the work carried out, highlighting the individual contribution and that of the collective work of the didactic organization of the module reading integrated in the architectural composition laboratory. The training course of the teaching aims to provide the student with the cultural and technical tools to move from the reading project to the architectural project.*

**Applying knowledge and understanding.** *The student must be able to return territorial, urban and architectural readings by responding to the theme of an ex tempore and / or to highlighting the relationship between reading a context and project application proposed in the context of the*

*architectural and urban composition laboratory. You must be able to use different scales and different representation techniques and at the same time you must demonstrate the ability to identify and explain the methodological aspects of the operations performed. The training course is aimed at transmitting the operational skills necessary to return morphological readings of architecture and cities and to synthesize the different aspects that inform the project.*

## COURSE CONTENT/SYLLABUS

*From the concept of the Historic Center to the concept of a Stratified City: The case study of Naples. The main training objective that we intend to pursue is the conceptual experimentation of the evolution of the Historic Center in the Stratified City. The survey field is the emblematic example of the city of Naples and its twelve historic districts. The theoretical assumptions of the definition of the Historic Center and the evolution of the Stratified City will be explored in the light of the seven new paradigms of contemporary architecture since in the continuous evolution of the Stratified City, the contemporaneity of the interventions necessarily requires a dialogue between pre-existing architecture and a new life cycle. of the historical-artistic heritage of the Historic Center. Zero soil consumption - bio remedation; Building on the built - leaving nature time to react; Bio-climatic architecture that produces energy rather than consuming it; Architecture and Nature - architecture as a prosthesis of nature; Cooperation between constellations of cities as opposed to competition between metropolises - decentralization versus densification of metropolitan areas and historic centers; Flexibility and reversibility of architecture with the use of recyclable materials - reuse and prudent recovery; New ethics of architecture for social cohesion. The field of architectural design experimentation of the Integrated Laboratory Course involves the emblematic example of the Insula of the former Leonardo Bianchi Psychiatric Hospital in Naples. The theme of the morphological investigation concerns the area inscribed within the perimeter of the walls of the hospital citadel and the design experimentation will be based on the morphological reading of the complex of clinics and wards in its relationship with the urban context, on the historical stratification and building chronology of the pre-existing elements both in the built and in the non-built parts such as the large park and historic gardens. The results that we intend to pursue will demonstrate that the starting theoretical paradigms are compatible with the Morphological Reading of the Stratified City for the description of the historical phases of urban growth and its reasons.*

## READINGS/BIBLIOGRAPHY

- Rossi A. L., Buondonno E., 2000, *Econeapolis, Album Cartografico dei dodici quartieri storici*. Ed. DiProAA.
- Buondonno E., 2012, La Città Stratificata di Ercolano, Editore Doppiavoce, Napoli. ISBN: 978-88-89972-3.
- Buondonno E., 2010, Napoli e il Centro Storico. Il cuore della terza metropoli italiana al centro del Mediterraneo in Nàpoles: Escenas detràs de la escena. Encuentros sobre Arquitectura, Cine, Filosofìa y Teatro. Sb Editorial, Buenos Aires. ISBN: 978-987- 1256-73-0.
Further bibliographical and documentary indications will be proposed during the Laboratory.

## TEACHING METHODS OF THE COURSE (OR MODULE)

*The Morphological Reading Course, a module integrated with the Architectural Composition Laboratory 4, is divided into theoretical lessons, practical-applicative exercises and in-depth seminars on different aspects of the analysis and reading of urban morphology and the environmental components that determine it in the within the Stratified City of Naples. The lectures, seminars and exercises will take place as foreseen by the Academic Calendar until the end of the course scheduled for the month of December; the further laboratory activities, with the revisions of the project documents, will continue in the following months with a conclusion in the first week of March for the carrying out of the exams. The experimental activities include phases of cartographic, iconographic and bibliographic investigations to be carried out in October, critical interpretations to be carried out in November and definitive and verified deductions of the morphological evolution of the urban area of study to be carried out in December. During the course there will be scientific days of a national nature with the Neapolitan Coordination Women in Science, on the occasion of the Scientific Week of Planet Earth, and the programming of the Geo-event, with visits to Neapolitan archaeological sites; the European Night of Scientific Research 2022 and the Future Remote event.*

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☐ Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

*The final evaluation will be weighted on the credits of the Architectural and Urban Composition Laboratory 4 (8 credits) and of the Morphological Reading module (4 credits).*

# COURSE DESCRIPTION
# MORPHOLOGICAL READING

# SSD: COMPOSIZIONE ARCHITETTONICA E URBANA (ICAR/14)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: 27180 - LABORATORIO DI COMPOSIZIONE ARCHITETTONICA E URBANA 4-LETTURA MORFOLOGICA
MODULE: 27191 - LETTURA MORFOLOGICA
CHANNEL: 04 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 4

### REQUIRED PRELIMINARY COURSES

Architectural And Design Studio 3 –Landscape Architecture

### PREREQUISITES

None

### LEARNING GOALS

The teaching objective is to introduce students to the knowledge and the learning of the tools of morphological reading. The teaching aims to provide students with specialized theoretical notions on how to read a morphological context, with particular reference to physical and architectural values, and practical notions for the re-presentation of the architecture of the project area. This dual articulation is developed in continuity with the tradition proper to Italian studies in which, in the description of physical reality, the perceptive datum is combined with that of memory. At the end of the teaching the student will have to: - know the basic principles and the different declinations of Italian studies of morphological reading, which will be the subject of theoretical lectures in the

course; - demonstrate awareness of the close relationship that binds the construction of architecture and the construction of the city in different historical periods and with respect to different architectural typologies; - have acquired ability to read and graphically render a morphological context, with particular reference to the physical values of a territory, a urban context and architectural types; - demonstrate critical ability in the description of physical reality by combining the perceptive datum with those of history and memory; - demonstrate understanding of the meaning of the link between the reading project and the architectural project; - know how to use programs, tools and techniques of representation in order to produce drawings of different types and at different scales.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of theories and techniques of morphological reading. He/she must demonstrate critical ability in the graphic elaboration of readings of territories, cities and architectures as well as in the communication of the acquired knowledge and all the phases of the work carried out emphasizing the individual contribution and that of the collective work proper to the didactic organization of the reading module integrated with the architectural composition laboratory. The training is geared toward conveying the operational skills necessary to develop morphological readings of architectures and cities and elaborate synthesis between the different aspects that inform design.

**Applying knowledge and understanding**

The student must demonstrate knowledge and understanding of theories and techniques of morphological reading. He/she must demonstrate critical ability in the graphic elaboration of readings of territories, cities and architectures as well as in the communication of the acquired knowledge and all the phases of the work carried out emphasizing the individual contribution and that of the collective work proper to the didactic organization of the reading module integrated with the architectural composition laboratory. The training is geared toward conveying the operational skills necessary to develop morphological readings of architectures and cities and elaborate synthesis between the different aspects that inform design.

## COURSE CONTENT/SYLLABUS

The Morphological Study consists of a theoretical part that concerns ways of reading territorial, urban and architectural contexts, with reference to the compositional structures, and a practical part aimed at the thematic reading and interpretation of the "architecture" of the area project. The lessons will be devoted for a first part to the reconstruction of a tradition of Italian studies linked to the morphological reading and to the examination of various forms of actualization in the practice of contemporary design. In this sense, in addition to reading and identifying the compositional structure of the area under study, the social and economic dynamics that will contribute to the definition of the project themes will also be considered. With reference to the theme of the architectural and urban composition laboratory to which the morphological reading course is integrated, we will work on different, possible readings of conventual systems similar to the one

being studied: structure of the architectural and urban system of the convent enclosures, reading of the relations with the contemporary context, identification of the possibilities of reinterpreting architectures and open spaces in relation to the characteristics of specific architectures and new project questions.

## READINGS/BIBLIOGRAPHY

Bibliography will be provided during the course with reference to specific lessons. Students will be an active part in finding reference texts and materials to allow for an ongoing comparison and debate on the topics that will be addressed.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The course is structured by lectures, alternating with exercises carried out in the form of ex-tempore in the classroom. Part of the hours is used to discuss in the classroom, always in collegial form, the papers produced during the exercises using various forms of presentation: drawings, photographs, videos, ppt, study models.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☐ Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The final evaluation will be weighted on the credits of the Architectural and Urban Design Laboratory 4 corresponding to 8 credits and of the Morphological Studies corresponding to 4 credits.

# COURSE DESCRIPTION
# PLANNING STUDIO

# SSD: URBANISTICA (ICAR/21)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: RUSSO MICHELANGELO
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 8

### REQUIRED PRELIMINARY COURSES

Students cannot be admitted to take the Urban Planning Laboratory exam if they have not passed the Territorial Planning Technique exam.

### PREREQUISITES

Students cannot be admitted to take the Urban Planning Laboratory exam if they have not passed the Territorial Planning Technique exam.

### LEARNING GOALS

The urban planning laboratory intends to provide the student with the critical and cognitive tools for understanding the fundamental issues of urban planning of the contemporary city, as well as to give theoretical and operational knowledge of a project approach methodology as well as the techniques for using the tools for preparing finalized urban plans and projects to the transformation and development of the territory and the urban landscape.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

In the Laboratory, through lectures, seminars, guided tours, and application activities, the student knows the issues related to urban planning and territorial planning in the theoretical aspects e methodological, in legal connotations, and in practical and technical applications, and it relates to the other disciplines that contribute to the formation of plans and projects at different scales.

**Applying knowledge and understanding**

The student develops the ability to theoretically and methodologically structure activities of design and urban planning at the urban and territorial scale comparing with its different degrees of complexity, the different fields of its application, and with the issues established by current legislation.

## COURSE CONTENT/SYLLABUS

The laboratory program focuses on the theoretical and experimental development of the notion of the contemporary city as a reality that distinguishes the territory produced by the urban phenomena in progress that modify the inhabited space through the superimposition of different layers of physical and non tangible materials: history, uses, forms, sediments, housing, productive settlements, infrastructure, open spaces, etc. The contemporary city is: the city of history, the ecological city, the city of marginality and the periphery, the city of infrastructure and the city-landscape, the city of risk and the inclusive city: different aspects and origins, material and intangibles layers that make the city a complex artifact with many dimensions.

## READINGS/BIBLIOGRAPHY

Desvigne M. The Landscape as Precondition, Lotus International n. 150, (pp. 20-26), 2012
Jullien F., Pensare l’efficacia in Cina e in Occidente, Laterza, Roma-Bari 2008
Perrone C., Russo M. (a cura di), Per una città sostenibile. 14 voci per un manifesto, Donzelli, Roma 2019
Russo M., Città-Mosaico. Il progetto contemporaneo oltre la settorialità, Clean Edizioni, Napoli, 2011
Russo M. (a cura di), Urbanistica per una diversa crescita, Roma, Donzelli, 2014
Russo M., Collaborazione dalla parte del progetto, Crios 13, (pp.17-30), 2017

## TEACHING METHODS OF THE COURSE (OR MODULE)

The laboratory is based on a cycle of frontal lessons that frame the disciplinary field and the main themes, current problems that characterize the phenomena of urbanization and the themes of urban planning; the lessons outline cultural positions and methodological approaches to design urban planning with particular attention to the relationship between the historic city and the city of formation, between density and dispersion, urbanization and landscape. In addition, the course defines: a) a series of lectures on the project methodology that introduce students' laboratory work on design
urban planning applied to a specific case study. The exercises are carried out individually and collectively; b) field trips will be planned in the study areas: c) cycles of seminars by other teachers and exponents of contemporary urban culture.

## EXAMINATION/EVALUATION CRITERIA

**b) Evaluation pattern**

a) Learning outcomes to be verified: During the laboratory and in the final exam, we intend to verify the students' ability to critically frame the problems of an urban territory through a multidimensional analysis and the assessment of critical issues and potentialities. The final exam measures the student's ability to prepare a set of textual and graphic elaborations that are able to analytically return the expert knowledge of an urban area, as well as verifying the ability to build strategic solutions and transformation planning of the territory through an adequate methodology and with technically relevant materials.

b) Examination methods: Object of the evaluation of the final exam is the urban planning project on the theme assigned in the study area accompanied by a complex system of diagnostic reports and knowledge of the urban and territorial reality examined. The papers are drawn up consistently with the contents of the planning tools according to current legislation and with the correct urban planning methodologies. The final exam consists of an expert discussion of the

project, which will also be evaluated on the basis of representation skills and adequacy of the disciplinary language used.

# COURSE DESCRIPTION
# PLANNING STUDIO

# SSD: URBANISTICA (ICAR/21)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 8

### REQUIRED PRELIMINARY COURSES

None

### PREREQUISITES

The student must have acquired knowledge about the mail elements of town planning ( history of modern town planning, cartography, town planning legislation) and skills in territorial and urban analysis.

### LEARNING GOALS

The main aim of this course is to develop the skill to work on urban plans, evaluating their impacts on territory and implementation issues. The student acquires the basic skills necessary for urban planning at the general and neighbourhood scale, in the awareness of contemporary principles of the urban and territorial planning and design.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student has to demonstrate his ability in: describing and analyzing the urban contexts; acquiring knowledge about urban regeneration and implementation projects; knowing different design and planning theories and techniques, within a wide range of intervention models for the territory and cities.

Knowledge and understanding: The student has to demonstrate his ability in: evaluating the landscape, environmental, settlement, cultural and socio-economic needs of the territory to be planned; assuming reference models with awareness of their coherence with the theories and design techniques of the disciplinary tradition; knowing how to choose the original combination of models and techniques useful for the intervention in every context of analysis, with attention to the consistency between the proposed actions and the scale of the interventions.

**Applying knowledge and understanding**

The student has to be able to communicate, through graphic and verbal / textual elaborations:

1) the synthetic frameworks of the specific conditions of places, with attention to their systemic structure (environmental, settlement, infrastructural);

2) weakenesses and strenghts detected through a context analysis carried out at different scales (from territorial to local);

3) the principles, rules and design choices of their own proposals for the regeneration and development of the territory.

Communication activities, aimed at dissemination in a large audience ( local community, political decision-makers and media) has to be linked to the ability to join the scientific debate (p.e. participation in seminars, workshops and conferences), using appropriate language and cultural references. Finally, the student has to be able to update or expand their knowledge by independently drawing on texts, scientific articles, projects and proposals for urban and territorial planning. To this aim, the course provides the student with useful information and suggestions for his continuous updating and the enrichment of their skills.

## COURSE CONTENT/SYLLABUS

The lessons present the methodological and operational contents of planning as a tool related to government of the territory, starting from the definition of the planning and its content (the city and the territory) in the contemporary condition about social needs (recovery and requalification of existing urban settlements, restoration of cultural and environmental resources, conservation of soil and natural resources, urban resilience and security, green infrastructure, etc.). In the studio activities, students will be asked to develop an exercise on a specific local area preparing a detailed design framework and applying urban indicators and parameters. The course is composed of 20 lessons of 4 hours each, in which topics related to the analysis, evaluation and design of a planning case study will be addressed with an in-depth study, especially referred to urban regeneration. The students will work in teams on a case study in order to produce the technical documents of the PUC (Urban Municipal Plan) required by the urban planning law, and develop a design solution at urban scale acquiring the multiscalar methodology. The work is divided in three phases, at the end of which the team will submit documentation to be discussed in

the class. The first phase is aimed at the drafting of the Preliminary Plan (some documents are required about analysis, evaluation and planning concept); the second phase aims at the development of assessment of the current state, using the DPSIR approach, and at the draft design guidelines for structural plan and green infrastructure; the third phase focuses on the regeneration project paying attention to the ecological issues in the study area. The theoretical approaches and the analytical design methodology will be developed through lectures, workshops, inspections and presentation / discussion of the documents produced by students. At the beginning of the course, in order to provide the IT tools suitable for urban planning, lessons will be focused on a basic GIS course, enaugh for the requested tasks. The main topics and activities of the lessons are listed below:
Lesson 1 - introduction to the course, n ecological and multiscale design (frontal lesson and interactive exercises).
Lesson 2 - presentation of the study area and splitting of students in teams with assignment of study areas, references to the regional urban planning law and regulations (frontal lesson and interactive exercises).
Lesson 3 - basics of GIS (classroom exercise); methodology for territorial analysis: tools and approaches for the analysis of naturalistic-environmental, settlement, relational and superordinate planning systems (frontal lesson and workshop).
Lesson 4 –inspection on site of the study area. Students' teams are coordinated by the teacher and collaborators (guided tour).
Lesson 5 - basics of GIS (classroom exercise); territorial analysis (frontal lesson and workshop).
Lesson 6 - basics of GIS (classroom exercise); the system of constraints to transformation of the territory in planning (frontal lesson, interactive exercises).
Lesson 7 - basics of GIS (classroom exercise); socio-demographic analysis and extimation of housing and equipment needs according to current legislation (frontal lesson, workshop).
Lesson 8 - First intermediate test with discussion of the produced documents in the first phase. The students deliver the documents produced two days before the discussion and, based on the preparation of a synthetic power point, present the results of the survey in the class (workshop).
Lesson 9 - The Identity Chart of the Territory and the Structural Invariants, strategic-structural part of the plan, evaluation in planning and application methods (from swot analysis to Geodesign), qualitative use of the DPSIR model, identification of criticalities and opportunities of the territory, the development areas (frontal lesson). Draft structural plan (workshop).
Lesson 10 - Presentation of examples of urban plans at the municipal scale: contents, methodologies.
Lesson 11 - The structural plan, plan strategies and development trends for the study areas (frontal lesson and workshop).
Lesson 12 - Ecological planning: green infrastructures, landscape and ecological urbanism. Methods and best practices. The s-RGB method in urban planning / design: urban safety, regeneration and green blue infrastructure (frontal lesson). Contents of the structural plan (workshop).
Lesson 13 - Second interim assessment with discussion of the produced documents in the second phase: Identity Charter of the territory, Evaluation, draft structural plan, elements of urban green

infrastructure (workshop).
Lesson 14 - Multiscale approach from planning to design. Presentation of neighborhood-scale regeneration design (frontal lesson and workshop).
Lesson 15 - Urban safety as an indicator of the functioning of public space: theories and methodological approaches (frontal lesson). Design of the study area (workshop).
Lesson 16 - Urban safety: best pratices (frontal lesson). Design of the study area (workshop).
Lesson 17 - Tactical approaches in planning: urban acupuncture and Tactical Urbanism (frontal lesson). Design of the study area (workshop).
Lesson 18 –Work on the individual design case study (workshop)
Lesson 19 - Work on the individual design case study (workshop)
Lesson 20 - Third and last presentation with discussion in the class about the individual case study (workshop). At the end of the lessons, the teacher will draw up a calendar of any further weekly workshop days.

## READINGS/BIBLIOGRAPHY


1. Acierno A., Coppola E. (2022), *Green Blue Infrastructure. Methodologies and design proposals* , FedOA Press, Napoli
2. Acierno A., *Chromatic City. Applying s-RGB Design to contemporary space*, FedOA Press, Napoli, 2019
3. Acierno A., *Riempire i vuoti urbani con le infrastrutture verdi*, rivista TRIA n. 14 (1/2015), FedOA Press, Napoli, 2015
4. Acierno A., *Abitare la città protetta. Profilo storico e disegno urbano*, E.S.I., Napoli , 2012
5. Steinitz C., *A framework for Geodesign, changing geography by design*, traduzione italiana a cura di M. Campagna in “Un Framework per il Geodesign: trasformare la Geografia con il Progetto”,
6. Gaeta L., Janin Rivolin U., Mazza L., *Governo del territorio e pianificazione spaziale*, CittàStudi Ed., Milano, 2013
7. Regione Campania, Quaderni della Regione Campania sulla costruzione del quadro conoscitivo e Preliminare del PUC


## TEACHING METHODS OF THE COURSE (OR MODULE)

The lessons are based on:
a) lectures for about 30% of the total hours,
b) exercises and seminars to deepen some theoretical and specific thematic aspects for 30% of the hours
c) laboratory to deepen the applied knowledge for 40% Will be provided on the Teams platform of the course: bibliographic documentation in a dedicated reading list, open access software and geo-referenced data in order to facilitate the analysis of the study areas; the pdf of the lessons with the guidelines on the topics covered and the exercises to be carried out.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

# COURSE DESCRIPTION
# PLANNING STUDIO

# SSD: URBANISTICA (ICAR/21)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: FORMATO ENRICO
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 04 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 8

### REQUIRED PRELIMINARY COURSES

Tecnica della pianificazione urbanistica e territoriale (3rd year)
(Introduction to Urban and regional planning)

### PREREQUISITES

The student must have acquired knowledge about the maim elements of town planning ( history of modern town planning, cartography, town planning legislation) and skills in territorial and urban analysis.

### LEARNING GOALS

The main aim of this course is to develop the skill to work on urban plans, evaluating their impacts on territory and implementation issues. The student acquires the basic skills necessary for urban planning at the general and neighbourhood scale, in the awareness of contemporary principles of the urban and territorial planning and design.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student has to demonstrate his ability in: describing and analyzing the urban contexts; acquiring knowledge about urban regeneration and implementation projects; knowing different design and planning theories and techniques, within a wide range of intervention models for the territory and cities.
Knowledge and understanding: The student has to demonstrate his ability in: evaluating the landscape, environmental, settlement, cultural and socio-economic needs of the territory to be planned; assuming reference models with awareness of their coherence with the theories and design techniques of the disciplinary tradition; knowing how to choose the original combination of models and techniques useful for the intervention in every context of analysis, with attention to the consistency between the proposed actions and the scale of the interventions.

### Applying knowledge and understanding

The student has to be able to communicate, through graphic and verbal / textual elaborations:
1) the synthetic frameworks of the specific conditions of places, with attention to their systemic structure (environmental, settlement, infrastructural);
2) weakenesses and strenghts detected through a context analysis carried out at different scales (from territorial to local);
3) the principles, rules and design choices of their own proposals for the regeneration and development of the territory.
Communication activities, aimed at dissemination in a large audience ( local community, political decision-makers and media) has to be linked to the ability to join the scientific debate (p.e. participation in seminars, workshops and conferences), using appropriate language and cultural references. Finally, the student has to be able to update or expand their knowledge by independently drawing on texts, scientific articles, projects and proposals for urban and territorial planning. To this aim, the course provides the student with useful information and suggestions for his continuous updating and the enrichment of their skills.

## COURSE CONTENT/SYLLABUS

Urban design uses different references, methods and techniques from those of the traditional architectural design. This difference is motivated by several factors: 1) by the complexity of the subject matter with which it is dealing (the city, the territory), 2) with the length of time over which transformations take place, 3) with the plurality of actors who, always imperfectly, will carry them out. The urban planning project is thus open, in the double sense of contextual and processual: exposed to the feedback of the context in which it acts and aware of the time in which its visions take shape, in a manner more or less consistent with what is imagined. However, although urbanism works in time, it remains a discipline anchored in space.
Modern urbanism, born to govern the urbanization process resulting from the industrial revolution, uses certain techniques - as "zoning" - inadequate to contemporary conditions. Increasingly, on the other hand, urban planning has come to connote itself as an activity endowed with a statute based on non-negotiable values and principles. New principles-linked to environmental sustainability, spatial justice, accessibility and hospitality-permeate urban planning today, making the project an activity not merely of technical assistance to political decision-making: urban planning is political; its task is to make transformation possible, not to govern the state of affairs. So what techniques and tools does the contemporary urban design use? In the Laboratorio (studio), we will try to provide answers to this question, working on a novel and emerging perspective: the relationship between urban design and the commons, conceptualized through the study of emerging civic uses.

The workshop is accompanied by 10 short lectures that can be further explored by students based on the bibliography provided from time to time:

-After the City. Post-metropolis, suburbia, peri-urbanization.

-Urbanism of difference: new values, methods and techniques.

-The project, between prefiguration, traces and informality.

-Land and city as renewable resources.

-Permaculture. Theories, methods and techniques.

-For a modest project. Territorial invariants, history and the environment.

-Common lands. Public city, civic and collective uses.

-Towards a radical ecology: soils, environmental infrastructure, ecosystem servises.

-The project of impermanence.

-Accessibility and hospitality. The urban design as infrastructure.

In each of the lectures, the theoretical cornerstones will be framed and some practical examples will be illustrated. Each of the themes will be the subject of an individual exercise and will return in the group project.

## READINGS/BIBLIOGRAPHY

Handouts related to the topics of the 10 lectures will be provided.

All background materials (maps, data, etc.) related to the case study to be developed during the workshop will also be provided.

The reference bibliography, to be colsulted for further study and critical reading, is as follows:

- Anders Abraham, *A New Nature. Architectural conditions between liquid and soil*, Lars Müller Publishers, Zurich, 2015.

- Anna Attademo ed Enrico Formato, *Fringe Shifts. Nuove forme di pianificazione per urbanità in transizione,* Listlab. Trento-Barcellona 2018.

- Enrico Formato, *Terre comuni. Il progetto dello spazio aperto nella città contemporanea.* Clean, Napoli 2012.

- Enrico Formato, La città ipercontestuale. CRIOS, 19-20, 2020.

- André Gorz, *Ecologia e libertà.* Othotés, Napoli 2015 (prima ed. 1977).

- David Harvey, *Città ribelli. I movimenti urbani dalla Comune di Parigi a Occupy Wall Street.* Il Saggiatore, Milano 2013 (ed. orig. 2012).

- Paolo Maddalena, *Il territorio bene comune degli italiani.* Donzelli, Roma 2014.

- Bernard Rudofsky, *Architecture without architects, an introduction to nonpedigreed architecture*. Moma press, New York 1964. https://www.moma.org/documents/moma_catalogue_3459_300062280.pdf. Michelangelo Russo, a cura di, *Urbanistica per una diversa crescita*. Donzelli, Roma 2014.

- Michelangelo Russo, a cura di, *Urbanistica per una diversa crescita.* Donzelli, Roma, 2014.

- Bernardo Secchi, *La città dei ricchi, la città dei poveri*. Laterza, Roma-Bari 2013.

- Paola Viganò, *I territori dell'urbanistica. Il progetto come produttore di conoscenza.* Officina, Roma 2010.

- Charles Waldheim, a cura di, *The Landscape Urbanism Reader*. Princeton Architectural Press 2006.

## TEACHING METHODS OF THE COURSE (OR MODULE)

Culture and training of critical spirit and attentive gaze is favored in the Laboratorio (Studio), in parallel with the refinement of its technical complement. The aim is to stimulate imagination,

understood as an activity necessary for the interpretation and design of the territory, and collective discussion. On the other hand, imagination without technique risks inconclusiveness. So, in parallel with the discussion and confrontation, continuous design exercises will be carried out, with which to learn by designing and redesigning, individually and in groups.
It is planned to alternate between short lectures and practical work, to be carried out through site surveys, drawings and modeling.
Discussion and self-assessment by each of the students will be stimulated during the practical work.
Interdisciplinary comparisons will be promoted by inviting experts in agronomy and landscape, photography, urban sociology and political science.

## EXAMINATION/EVALUATION CRITERIA

**b) Evaluation pattern**

Verification of acquired skills will be conducted through the presentation of the graphic works produced. The examination will be conducted collectively, preferably in the summer session, at the conclusion of the curricular activities. The degree of knowledge of the topics covered during the course, the appropriate use of the supporting bibliography as well as the quality and discussion of the graphic works produced will be evaluated.

# COURSE DESCRIPTION
# THEORIES AND HISTORY OF RESTORATION

# SSD: RESTAURO (ICAR/19)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: PICONE RENATA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 6

### REQUIRED PRELIMINARY COURSES

History of Architecture

### PREREQUISITES

None

### LEARNING GOALS

The course aims to provide the students with the necessary knowledge on current orientations on architectural restoration in Italy, on the relationship between architects of the past and the built heritage, on the origins of modern restoration, on the codifications of the restoration in 19th Century, on the restoration in Italy in 20th Century, focusing on the critical knots of the discipline.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

At the end of the course and after passing the exam the student will be able to acknowledge the evolution of the theories and practices of architectural and urban restoration, relating it to the

contemporary disciplinary debate and applying these knowledges to the historical heritage in progress.

Knowledge and understanding

The student must:

-Show to know and be able to understand the historical contexts and the protagonists who marked the theories and practices of the architectural and urban restoration since the ancient classical epoch to the current debate;

-Show to know the main projects and interventions that witness the evolution of theories and practices of the architectural and urban restoration during centuries;

-Show to be able to take part in complex discussions dealing with the process that led to a progressive understanding of the values of the cultural heritage during centuries;

-Show to critically perceive the current orientations of the debate on restoration.

The training path of the course aims to provide students with the knowledge and the methodology base tools necessary to analyze and understand the evolution of theories and practices of the architectural and urban restoration relating to the contemporary subject debate. These instruments, sided by examples and focuses of case studies among centuries, will allow students to understand that each layered fabric is made up of historical signs for the conservation and transformation interventions, realized with different degrees of knowledge of its cultural values due to the progressive evolution of the consciousness toward the built heritage. This will help the students to understand each single fabric in its progress, providing the basis for further operative focuses of the Laboratory of Restoration.

**Applying knowledge and understanding**

Applying knowledge and understanding

The students must show:

- To be able to understand the origin of the fabric and its evolution, relating to the time and distinguishing the transformation interventions, restoration and conservation in relation to the degree of awareness of the different epochs.
- To be able to understand the palimpsest and the historical values of the layers of a fabric, highlighting the different tracks and relating them to the historical context that produced them, in order to transmit them to the further generations.

The training path is oriented to transmit the critical abilities useful to understand the tangible and intangible values of the built heritage in its palimpsest and among its witnessing meanings, in order to define conservation and enhancement strategies, too.

Autonomy of Judgement

The student must be able to elaborate critically and with fluency of the historical chronology the evolution of theories and practices of architectural and urban restoration, acquiring the ability to

elaborate a critical vision among the current orientations of restoration and the methodology shared by the scientific community of restoration. The autonomy of judgement is progressively refined and checked via laboratory activities, inspections on sites and the final exam.

Communication Skills

The student must be able to talk and argue, with fluency and understanding of specific terms, the evolution of the theories and practices of architectural and urban restoration, relating with the historical and geographical contexts, and, in a wider sense, with the general history. The student must be able to speak clearly and to expose the acquired knowledge related to the contemporary issues on restoration and conservation.

Learning Skills

The student must acquire an adequate learning skill allowing him or her to widen his or her knowledges via bibliographical sources, participation in seminaries, conferences, international workshops provided by the Department or abroad. At the end of the path the student must be able to apply his or her knowledge profitably and critically to the further laboratory of Restoration scheduled by the didactic system of the CdS.

## COURSE CONTENT/SYLLABUS

The Architectural restoration: the current orientations of method in Italy. The architects of the past and the built heritage: the architects of Middle Ages and Renaissance and the instances of conservation during Baroque. The critique to the tradition in the Enlightenment period. The protection of cultural heritage in the first half of the 19th Century. The codification of the restoration in the 20th Century: the stylistic restoration by E. E. Viollet le Duc, The Anti-Restoration Movement by J. Ruskin, Morris, and the S.B.A.P.; the embellishment restoration, Boito and the vote of the 3rd Convention of Engineers and Architects in Italy, the restoration as the research of the historical truth, the restoration in Italy in 20th Century (G. Giovannoni, A. Avena, G. Chierici, R. Pane, C. Brandi).

## READINGS/BIBLIOGRAPHY

S. Casiello, Restauri a Napoli nei primi del Novecento, in “Restauro”, nn. 68-69, 1983, pp. 7-30 *.
R. Picone, Il pensiero di Roberto Pane come contributo al moderno criterio di tutela ambientale, in “Napoli nobilissima”, vol. XXVI, fasc. I -VI, gennaio-dicembre 1987, pp. 144-148.
R. Picone, Federico Travaglini. Il restauro tra ‘abbellimento’ e ripristino, Electa Napoli, Napoli 1996.
G. Carbonara, Gli orientamenti attuali del restauro architettonico, in Restauro dalla Teoria alla Prassi, a cura di S. Casiello, Electa, Napoli, ivi 2000, pp.9-26 *.
La cultura del restauro. Teorie e fondatori, a cura di S. Casiello, Marsilio, Venezia 2005.
R. Picone, Roberto Pane (1897-1987), in Che cos’è il restauro? Nove studiosi a confronto, da un’idea di B. P. Torsello, Marsilio, Venezia 2005, pp. 81-87.
Verso una storia del restauro. Dall’età classica al primo Ottocento, a cura di S. Casiello, Alinea, Firenze 2008.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The course is divided into frontal lectures (80% circa) and site inspections (20% circa).

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [ ] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

Students are evaluated throughout a final oral exam based on the theoretical knowledge acquired on the contemporary debate on conservation and protection of architectural heritage, with focuses on the origins of modern restoration, the codifications of the restoration during centuries, the restoration in Italy during 20th Century.

# COURSE DESCRIPTION
# THEORIES AND HISTORY OF RESTORATION

# SSD: RESTAURO (ICAR/19)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: MARINO BIANCA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 6

### REQUIRED PRELIMINARY COURSES

History of Architecture.

### PREREQUISITES

Any requirement.

### LEARNING GOALS

The course aims to provide the students with the necessary knowledge on current orientations on architectural restoration in Italy, on the relationship between architects of the past and the built heritage, on the origins of modern conservation, on the codifications of restoration in 19th Century, on the restoration in Italy in 20th Century, focusing on the critical knots of the discipline.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

At the end of the course and after passing the exam the student will be able to acknowledge the evolution of the theories and practices of architectural and urban restoration, relating it to the

contemporary disciplinary debate and applying these knowledges to the historical heritage in progress.
The student must:
-show that he/she has acquired the knowledge and the ablility to understand the historical contexts and the protagonists who marked the theories and practices of the architectural and urban restoration since the ancient classical epoch to the current debate;
-show that he/she knows the main projects and interventions that witness the evolution of theories and practices of the architectural and urban restoration during centuries;
-show that he/she is able to take part in complex discussions dealing with the process that led to a progressive understanding of the values of the cultural heritage during centuries;
-show that he/she has critically perceive the current orientations of the debate on restoration.
The training path of the course aims to provide students with the knowledge and the methodology base tools necessary to analyze and understand the evolution of theories and practices of the architectural and urban conservation relating to the contemporary subject debate. These instruments, sided by examples and focuses of case studies among centuries, will allow students to understand that each layered fabric is made up of historical signs for the conservation and transformation interventions, realized with different degrees of knowledge of its cultural values due to the progressive evolution of the consciousness toward the built heritage. This will help the students to understand each single fabric in its progress, providing the basis for further operative focuses of the Laboratory of Restoration.

**Applying knowledge and understanding**
The students must show:
- to be able to understand the origin of the fabric and its evolution, relating to the time and distinguishing the transformation interventions, restoration and conservation in relation to the degree of awareness of the different epochs.
- to be able to understand the palimpsest and the historical values of the layers of a fabric, highlighting the different tracks and relating them to the historical context that produced them, in order to transmit them to the further generations.
The training path is oriented to transmit the critical abilities useful to understand the tangible and intangible values of the built heritage in its palimpsest and among its witnessing meanings, in order to define conservation and enhancement strategies, too.

**Autonomy of Judgement**
The student must be able to elaborate critically and with good handling of the historical chronology the evolution of theories and practices of architectural and urban restoration, acquiring the ability to elaborate a critical vision among the current orientations of restoration and the methodology shared by the scientific community of restoration. The autonomy of judgement is progressively refined and checked via laboratory activities, inspections on sites and the final exam.

**Communication Skills**
The student must be able to talk and argue, and with good handling and understanding of specific terminology, the evolution of the theories and practices of architectural and urban conservation, relating with the historical and geographical contexts, and, in a wider sense, with the general

history. The student must be able to speak clearly and to expose the acquired knowledge related to the contemporary issues on restoration and conservation.

**Learning Skills**

The student must acquire an adequate learning skill allowing him or her to widen his or her knowledges via bibliographical sources, participation in seminaries, conferences, international workshops provided by the Department or abroad. At the end of the path the student must be able to apply his or her knowledge profitably and critically to the further laboratory of Restoration scheduled by the didactic system of the CdS.

## COURSE CONTENT/SYLLABUS

"Restoration" and "architectural restoration." Definitions and terminological aspects: restoration, conservation, rehabilitation, recovery, maintenance.

Restoration before restoration: the relationship between past and present from Antiquity to the 18th century.

Pre-existence and transformation from Antiquity to the Age of Enlightenment. Restoration between architecture and science in two emblematic cases: the Roman dome of St. Peter's and the question of the dome of the Panthéon in Paris.

Toward the modern vision of conservation and restoration. The revolutionary French context and the birth of restoration in style. Neoclassical, neo-Gothic and the work of L. Vitet, P. Mérimée, A. C. Quatremère de Quincy. The figure and work of E. E. Viollet-le-Duc. The English context: from the neo-Gothic movement to J. Ruskin's "restoration is destruction" and the social vision of conservation by W. Morris and the S.P.A.B. The Italian context between the nineteenth and twentieth centuries: archaeology, restoration and urban interventions.  C. Boito and the Voto of 1883, L. Beltrami and the dov'era and com'era.

The 20th century and the broadening of conservation horizons. Monuments and city aesthetics: the Belgian case with Ch.Buls and V. Horta. The Austro-Hungarian context: conservation and restoration in A. Riegl and M. Dvoák. The Italian culture of restoration: G. Giovannoni, G. Chierici and A. Annoni. The debate of the 1930s between Restoration Charters and conservation laws: Athens Charter (1931), 1932 Charter, C.I.A.M. Charter (1933), 1938 Instructions.

The post-World War II period and Italian culture. Monuments and cities in the postwar period: reconstructions and restorations. C. Brandi: recognition of the work and The theory of restoration. The 1972 Restoration Charter. Restoration and critical judgment: the contribution of R. Pane and R. Bonelli. The international dimension: the Venice Charter and the work of P. Gazzola.

The 'ancient center' and the 'landscape': from the postwar debate to the concept of 'cultural landscape'. The urban dimension of conservation: The Gubbio Charter. The 1970s debate, urban restoration and 'recovery'. From monument to 'cultural good' between new historiographical visions and the Charters and Documents: Franceschini Commission, Venice Charter (1964). From the historic center to the historic city: Amsterdam Declaration (1975). Granada Convention (1985); Washington Charter (1987). From natural beauty to the concept of cultural landscape: evolution of the concept of landscape in the 20th century through the reading of restoration charters and international documents. UNESCO Paris Convention (1972). The theme of authenticity and the Nara Declaration (1994). European Landscape Convention (2000). The concept of HUL and

Vienna Memorandum (2005). UNESCO Recommendations (2011).
Some themes of the current debate and design issues. Critical-conservative restoration, conservation, 'restoration'. Restoration and design in the ancient-new relationship and the theme of restoration of the modern.

## READINGS/BIBLIOGRAPHY

### BIBLIOGRAPHY OF REFERENCE


- C. Aveta, *Piero Gazzola. Restauro dei monumenti e tutela ambientale*, ESI, Napoli 2007.
- A. Bellini [et al.], *Che cos'è il restauro? Nove studiosi a confronto; da un'idea di B. Paolo Torsello,* Marsilio, Venezia 2005.
- C. Brandi, *La teoria del restauro*, Einaudi, Torino 2000 (p. ed. 1963).
- G. Carbonara, *Gli orientamenti di metodo attuali del restauro architettonico*, in S. Casiello, (a cura di), *Restauro. Dalla teoria alla prassi*, Electa Napoli, Napoli 2000**.**
- Carte e Documenti sul Restauro.
- C. Dezzi Bardeschi (a cura di), *Abbeceddario minimo, 'ANANKE. Cento voci per il restauro*, Altralinea Edizioni, Firenze 2017.
- A.M. Di Stefano, *Viollet-le-Duc. Un architetto nuovo per conservare l'antico*, ESI, Napoli 1994.
- R. Di Stefano, *La cupola di S. Pietro*, ESI, Napoli 1980.
- R. Di Stefano, *John Ruskin. Interprete dell'architettura e del restauro*, ESI, Napoli 1983.
- M. Dvoák, *Catechismo per la tutela dei monumenti*, trad.it. a cura di M. Bacci, in «Paragone» Arte, n.257/1971.
- J. Le Goff, *Documento/Monumento*, Enciclopedia Einaudi, Torino 1978.
- B.G. Marino, *William Morris. La tutela come problema sociale*, ESI, Napoli 1993.
- B.G. Marino, *Victor Horta. Conservazione e restauro in Belgio*, ESI, Napoli 2000.
- B.G. Marino, *Abbellimenti e conservazione in Belgio tra fine '800 e inizio '900: riflessioni sulla visione estetica di Charles Buls*, in "BDC", n. 3/2002.
- B.G. Marino, *Restauro e autenticità. Nodi e Questione critiche,* ESI, Napoli 2006, pp. 356-372.
- B.G. Marino, *Luoghi esterni, immagini interne: attualità del percorso della conservazione dell'architettura in Roberto Pane*, in *Atti del Convegno Roberto Pane tra storia e restauro. Architettura, città, paesaggio, (*Napoli, 27-28 ottobre 2008), Marsilio, Venezia 2010.
- B.G. Marino, *Cupole e restauro. Il Panthéon di Parigi tra scienza, architettura e conservazione*, ESI, Napoli 2012.
- B.G. Marino, *Il restauro dopo e durante i Moderni: un autentico valore di novità*, in «Confronti», numero monografico "Il restauro del Moderno", n. 1, 2012.
- B. G. Marino, *Lussemburgo, conservazione dinamica negli anni '60: Piero Gazzola e Jean Bernard Perrin ad Echternach*, in 'ANAKH 74, Gennaio 2015.
- B.G. Marino, *Restauro, storia, progetto: una questione da affrontare*, in Fiorani D. (a cura di), *RICerca/REStauro*, Edizioni Quasar, Roma 2017.
- B.G. Marino, *Sugli* im*possibili margini della conservazione*, in M. Dezzi Bardeschi, *La conservazione accende il progetto*, Artstudiopaparo Edizioni, Napoli 2018.
- R. Pane, *Attualità e dialettica del restauro*, Antologia a cura di M. Civita, Solfanelli, Chieti 1987.

- A. Riegl, *Il culto moderno dei monumenti. Il suo carattere i suoi inizi*, a cura di S. Scarrocchia, Nuova Alfa Editoriale, Bologna 1990.
- M. P. Sette, *Il restauro in Architettura. Quadro storico*, UTET, Torino 2001.

**Note: Specific literature references will be indicated and provided during the course.**

## TEACHING METHODS OF THE COURSE (OR MODULE)

Teaching will be carried out through the delivery of face-to-face lectures and with field trips and guided tours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☐ Project discussion
- ☐ Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

Through a final oral interview, the theoretical knowledge acquired by the student on the contemporary debate on the conservation and protection of architectural heritage will be evaluated, with insights into the origin of modern restoration, codifications of restoration over the centuries, and restoration in Italy and Europe.

**Note: The course may include an (optional) inter-course test.**

# COURSE DESCRIPTION
# THEORIES AND HISTORY OF RESTORATION

# SSD: RESTAURO (ICAR/19)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: PANE ANDREA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 03 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 6

### REQUIRED PRELIMINARY COURSES

History of Architecture (Storia dell'Architettura)

### PREREQUISITES

None

### LEARNING GOALS

The course aims to provide the students with the necessary knowledge on current orientations on architectural restoration in Italy, on the relationship between architects of the past and the built heritage, on the origins of modern restoration, on the codifications of the restoration in 19th Century, on the restoration in Italy in 20th Century, focusing on the critical knots of the discipline. At the end of the course and after passing the exam the student will be able to acknowledge the evolution of the theories and practices of architectural and urban restoration, relating it to the contemporary disciplinary debate and applying these knowledges to the historical heritage in progress.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must:

-Show to know and be able to understand the historical contexts and the protagonists who marked the theories and practices of the architectural and urban restoration since the ancient classical epoch to the current debate;

-Show to know the main projects and interventions that witness the evolution of theories and practices of the architectural and urban restoration during centuries;

-Show to be able to take part in complex discussions dealing with the process that led to a progressive understanding of the values of the cultural heritage during centuries;

-Show to critically perceive the current orientations of the debate on restoration.

The training path of the course aims to provide students with the knowledge and the methodology base tools necessary to analyze and understand the evolution of theories and practices of the architectural and urban restoration relating to the contemporary subject debate. These instruments, sided by examples and focuses of case studies among centuries, will allow students to understand that each layered fabric is made up of historical signs for the conservation and transformation interventions, realized with different degrees of knowledge of its cultural values due to the progressive evolution of the consciousness toward the built heritage. This will help the students to understand each single fabric in its progress, providing the basis for further operative focuses of the Laboratory of Restoration.

**Applying knowledge and understanding**

The students must show:

- To be able to understand the origin of the fabric and its evolution, relating to the time and distinguishing the transformation interventions, restoration and conservation in relation to the degree of awareness of the different epochs;

- To be able to understand the palimpsest and the historical values of the layers of a fabric, highlighting the different tracks and relating them to the historical context that produced them, in order to transmit them to the further generations. The training path is oriented to transmit the critical abilities useful to understand the tangible and intangible values of the built heritage in its palimpsest and among its witnessing meanings, in order to define conservation and enhancement strategies, too.

## COURSE CONTENT/SYLLABUS

The course is divided into two parts, corresponding to its own title, the "History" and the "Theories" of Restoration. In the first part, through the reinterpretation of some fundamental stages of the history of architecture, the students are progressively led to approach the complex men’s relationship to the pre-existence, which was differently evaluated over time leading to the birth of the modern concept of Restoration, starting in the late eighteenth century. In the second part, the development of theoretical reflections gradually leading to current disciplinary guidelines is simultaneously dealt with the historical evolution of the discipline over the last two centuries.

THE CONCEPTIONS OF "RESTORATION" BEFORE THE FORMULATION OF NINETEENTH CENTURY THEORIES
Men's relationship with the pre-existences since the classical age to the late imperial age. Repurpose, reuse and memory of the ancient through the Middle Ages. The ancient and pre-existences through Humanism and Renaissance: Brunelleschi, Alberti, Bramante, Filarete, Raffaello, Michelangelo. Pre-existing architecture in Counter-reformation age and Baroque. "Instructions", projects and constructions in the contexts of Naples and Rome. From reuse to knowledge of the ancient: archaeology and restoration in the eighteenth century. Aspects of the culture of restoration in the work by Luigi Vanvitelli in the second eighteenth century.

RESTORATION FROM THE FRENCH REVOLUTION TO THE ATHENS CHARTER: THEORETICAL MATTERS, CHARACTERS AND INTERVENTIONS
Restoration and protection though the neoclassical period. Conservation and restoration in Rome in the first decades of the nineteenth century. Architecture and city transformations in Naples through the French decade. Restoration and medievalism in the nineteenth century: the role of French «scholars» from Quatremère de Quincy to L. Vitet and P. Mérimée. “Stylistic restoration” through the figure and work of E.E. Viollet-le-Duc. The English contribution to the theory of restoration and conservation: J. Ruskin and W. Morris. “Stylistic restoration” and the critical fortune of E.E. Viollet-le-Duc in Italy: references to the work of F. Travaglini and A. Rubbiani. Restoration during Italian post-unification between theoretical advances and operational contradictions: the origins of philological restoration and the declinations of historical restoration in the activities of C. Boito, L. Beltrami, A. D'andrade. The concept of restoration according to the thought of a protagonist in the context of Viennese school: the contribution of Alois Riegl. Restoration in Italy between the two wars and the character of G. Giovannoni: theoretical reflections and operational interventions. The extension of problems of protection from the individual monument to the urban settings. Works by G. Chierici. in Naples. The Charter of Athens of 1931.

RESTORATION FROM THE SECOND WORLD WAR TO CURRENT ORIENTATIONS
Problems of architectural and urban reconstruction following the Second World War destructions: the cases of S. Chiara in Naples and the bridge to S. Trinita in Florence. The problem of war ruins in Italy and Europe, differences and analogies: the case of England. The origins of critical restoration. The thought of R. Pane and the theory of C. Brandi. Evolution of restoration theories from the Charter of Athens to the Charter of Venice (1964). The restoration in the current theoretical orientations and its main declinations: pure conservation, critical-conservative restoration, buildings maintenance-restoration. Destruction and restoration: the two cases of Bamyian and Notre-Dame.

**READINGS/BIBLIOGRAPHY**

S. Casiello (a cura di), *Verso una storia del restauro. Dall’età classica al primo Ottocento*, Alinea, Firenze 2008.

S. Casiello (a cura di), *La cultura del restauro. Teorie e fondatori*, Marsilio, Venezia 2005.
* J. Ruskin, *Le sette lampade dell'architettura* (1849), Jaca Book, Milano 1981, aforismi 30 e 31, pp. 219-230.
* C. Boito, *I restauri in architettura* (1884), in Id., *Questioni pratiche di belle arti*, Milano 1893, ora in Id., *Il nuovo e l'antico in architettura*, Jaca book, Milano 1988, pp. 107-126.
* E. Viollet-le-Duc, voce *Restauro*, in Id., *L'architettura ragionata*, Jaca Book, Milano 1981, pp. 247-271.
C. Brandi, *Teoria del restauro*, De Luca, Roma 1963; Einaudi, Torino 1997.
* R. Pane, *Attualità e dialettica del restauro*, antologia a cura di M. Civita, Solfanelli, Chieti 1987, pp. 23-40; 76-83; 113-149; 171-195; 279-288; 299-306.
* E. Romeo, *Documenti e norme per il restauro architettonico*, in S. Casiello (a cura di), *Restauro, criteri, metodi esperienze*, Napoli 1990 (Carta di Atene, 1931; Carta italiana del restauro, 1932; Istruzioni del 1938; Carta di Venezia, 1964; Carta italiana del restauro, 1972), pp. 237-240; 252-256.
* G. Carbonara, *Gli orientamenti attuali del restauro architettonico*, in S. Casiello (a cura di), *Restauro dalla teoria alla prassi*, Electa Napoli, ivi 2000, pp. 9-26.
* M. P. Sette, *Il restauro in architettura. Quadro storico*, UTET, Torino 2001, pp. 166-175, p. 177 e p. 179.
* A. Pane, *Roberto Pane (1897-1987)*, in «'ANAKH», n. 50-51, gennaio-maggio 2007, pp. 24-33.
* A. Pane, *Da Boito a Giovannoni: una difficile eredità*, in «'ANAKH», n. 57, maggio 2009, pp. 144-153.
* A. Pane, *«L'inserzione del nuovo nel vecchio». Brandi e il dibattito sull'architettura moderna nei centri storici (1956-64)*, in *Brandi e l'architettura*, a cura di A. Cangelosi e M. R. Vitale, Atti della giornata di studio (Siracusa, 30 ottobre 2006), Lombardi editori, Siracusa 2008, pp. 307-325.
* A. Pane, *Da Croce a Jung: Roberto Pane tra estetica, psiche e memoria*, in *Memoria, bellezza e transdisciplinarità. Riflessioni sull'attualità di Roberto Pane*, a cura di A. Anzani, E. Guglielmi, Maggioli Editore, Santarcangelo di Romagna 2017, pp. 29-58.
* G. Carbonara, *Gli orientamenti attuali del restauro architettonico*, in S. Casiello (a cura di), *Restauro dalla teoria alla prassi*, Electa Napoli, ivi 2000, pp. 9-26.
* A. Pane, *Ragioni del restauro, ragioni del progetto: il dibattito sul futuro di Notre-Dame*, in *Il progetto di architettura come intersezioni dei saperi. Per una nozione rinnovata di Patrimonio*, Atti del VIII Forum ProArch, Società Scientifica nazionale dei docenti di Progettazione Architettonica, SSD ICAR 14, 15 e 16 (Napoli, 21-23 novembre 2019), a cura di A. Calderoni, B. Di Palma, A. Nitti, G. Oliva, ProArch, s.l. 2019, pp. 484-489.

For more extensive iconographic documentation about some restoration cases (Madeleine di Vezelay, Notre-Dame, Carcassonne, Pierrefonds, Castello Sforzesco, Quartiere del Rinascimento, etc.) we suggest to see the volume:

C. Di Biase (a cura di), *Il restauro e i monumenti. Materiali per la storia del restauro*, Milano 2003, disponibile nella Biblioteca specialistica di storia e restauro "Roberto Pane".

The volumes that are not marked by an asterisk are available to buy in bookshops and/or can be found in the Central Library of Area Architettura or in the specialized one of History and Restoration "Roberto Pane", both located on the first floor of Palazzo Gravina.

## TEACHING METHODS OF THE COURSE (OR MODULE)

Professor will use: a) frontal lectures approximately 80% of the total teaching hours; b) surveys to improve the direct knowledge of the architectural and urban contexts dealt with in the course approximately 20% of the total teaching hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [ ] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

Final oral tests are held to assess the theoretical knowledges acquired by students about the contemporary debate about conservation and protection of architectural heritage and more about the origin of modern restoration, the codifications of restoration over the centuries, restoration in Italy through the twentieth century.

# COURSE DESCRIPTION
# LABORATORY OF CONSTRUCTION TECHNIQUE

# SSD: TECNICA DELLE COSTRUZIONI (ICAR/09)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: LANDOLFO RAFFAELE
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 12

### REQUIRED PRELIMINARY COURSES

Structural Mechanics

### PREREQUISITES

Fundamental concepts of Structural Mechanics. Given the applicative nature of the course, basic computer knowledge of the Microsoft Office package (Word, Excel) and CAD programs (AutoCAD), available free of charge for students of the University of Naples Federico II, are recommended.

### LEARNING GOALS

The main goal of the course is to provide the basis of a methodology for the analysis and design of structures, in accordance with current national and international standards. The issues are related to the conceptual design, design and verification of simple structures made of typical construction materials. Particular attention will be devoted to the topic of seismic risk reduction strategies, with reference to the design of new buildings and to the vulnerability assessment and evaluation of

existing ones.

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

During the course, through lectures, seminars and laboratory activities, the student acquires the knowledge required to develop the conceptual design and calculation of structures as integrated elements of the elaboration of the architectural project in the various fields of its application. He/she also understands the interconnections with the other disciplines that contribute to the formation of the architectural project.

**Applying knowledge and understanding**

The student develops the ability to apply the theoretical and methodological knowledge related to the structural aspects of the architectural project and to produce general and simple design drawings by comparing themselves with different degrees of in-depth analysis of the architectural project, at different scales and in different areas of its application.

## COURSE CONTENT/SYLLABUS

**Basis of structural design**

Introduction
Objectives and methods for structural design
Methods for structural safety
Actions on constructions and regulatory framework
Units of measure and analysis of loads

**Steel members**

Materials and products
Strength and stability verifications in the elastic field
The plastic theory for steel members: members in tension and compression
The plastic moment and the interaction domains
The stability of compressed members
Members in bending and in combined bending and axial force

**Reinforced concrete members**

Materials, components and behavioural phases
The elastic analysis in the cracked phase
The ultimate limit state for normal stresses
The M-N interaction domains and the stress-block method
Ultimate limit state for shear stresses
Serviceability limit states: cracking and deformation

**Structural systems: typologies and classification**

The typology of the elements
Constraints and their classification
Typological classification of beam systems

The classification of structural systems
The buildings

**Earthquakes and seismic risk**

Theory of plate tectonics
Seismic waves
Earthquake measuring instruments
The location of the earthquake
The measure of the earthquake
The seismic risk

**Fundamentals of Structural Dynamics**

Dynamics of structures
The single-degree-of-freedom system
Static approach and dynamic approach
The response spectrum
The single-degree-of-freedom system in reality
Elastic systems with several degrees of freedom

**General principles of seismic design**

Earthquake-resistant systems and structural regularity
Seismic design strategies
Ductility and behaviour factor
General design criteria
Capacity design
Verifications at DLS

**Design criteria for steel buildings in seismic areas**

Structural typologies
Ductility of steel structures
Behaviour factors and general rules
Frame structures
Structures with concentric bracings
Structures with eccentric bracings

**Design criteria for reinforced concrete buildings in seismic areas**

Structural typologies
The ductility of reinforced concrete structures
Behaviour factors
Design and verification of structural elements
Beams and columns
Beam-to-column joints

**Existing buildings in the seismic areas**

Prerogatives and pathologies of existing buildings
Structural identification and knowledge levels
Security assessment

Strategies of interventions, upgrading improvement and local interventions
Intervention strategies for the reduction of vulnerability

## READINGS/BIBLIOGRAPHY

• Lectures given during the course
• Additional teaching material derived from lectures available at the following link:
http://www.federica.unina.it/corsi/laboratorio-di-tecnica-delle-costruzioni/ ·
• References for further information on covered topics:
- D.L. Schodek, Strutture, Patron Editore, 2012
- M. Mezzina, Fondamenti di Tecnica delle Costruzioni, Città Studi Edizioni, seconda edizione 2021
• Standards:
- Ministero delle Infrastrutture e dei Trasporti. Aggiornamento delle Norme Tecniche delle Costruzioni –supplemento ordinario n. 8, pubblicata sulla Gazzetta Ufficiale n. 42 del 20.02.2018.
- Circolare 21 gennaio 2019, n. 7 C.S.LL.PP. Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.
• Scientific papers dealing with covered topics

## TEACHING METHODS OF THE COURSE (OR MODULE)

The teaching activity is organized into two modules and includes a theoretical and an applied part. The first module, essentially theoretical in nature, develops and integrates the contents of the previous courses in the structural area in relation to problems connected with materials and construction technologies. The exercises are numerical and they involve design and verification of simple structural elements. The second module, mainly of a design nature, is focused on the study of the behaviour of more complex structural systems and on design strategies in seismic areas. In this case, the application part is aimed at the executive design of recurring structural typologies in professional practice. The educational offer also includes various seminars on specific topics of structural engineering.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [ ] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [ ] Numerical exercises

**b) Evaluation pattern**

# COURSE DESCRIPTION
# LABORATORY OF CONSTRUCTION TECHNIQUE

# SSD: TECNICA DELLE COSTRUZIONI (ICAR/09)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: DE MARTINO ATTILIO
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL:
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 12

### REQUIRED PRELIMINARY COURSES

**Scienza delle Costruzioni**

### PREREQUISITES

**Scienza delle Costruzioni**

### LEARNING GOALS

**Course objectives** *The purpose of the course is to provide the foundations of an analysis methodology aimed at understanding the problems related to the structural design. The goal is to provide the ability for proceeding with the conception, sizing and verification of very simple structural types made in different building materials, so that the future architectural designer, although not able to replace the structural engineer, can competently proceed to the preliminary dimensional setting of simple architectural works. The course does not aim to train a professional figure able to develop autonomously structural projects.*

## EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

**Knowledge and understanding** *During the five years, through lectures, seminars and laboratory activities, the student knows the issues related to the conception and general calculation of the structures as integrated elements of the elaboration of the architectural project in the various fields of its application and understands the interconnections with the other disciplines that contribute to the formation of the architectural project.*

**Applying knowledge and understanding**

**Ability to apply knowledge and understanding** *The student develops the ability to apply the theoretical and methodological knowledge related to the structural aspects of the architectural project and to produce general and simple design drawings by comparing themselves with the different degrees of depth of the architectural project, at the different scales and in the different areas of its application.*

## COURSE CONTENT/SYLLABUS

*The course is essentially divided into two modules, aimed at jointly addressing the main theoretical issues and implementation problems. The first module (first semester) introduces the problem of structural safety and the design / verification methodologies of very simple structural elements in reinforced concrete. The second module (second semester) introduces the design / verification methodologies of simple structural steel elements. The problems related to earthquake engineering are postponed to future courses, in one with the tools of analysis and verification of complex structural organisms such as buildings. The second module develops two design / verification exercises of two structural sub-elements (beams and floors) in two different materials; the reference to real structural elements is purely symbolic.*

**Theoretical lessons**

*The materials*

1. *Concrete and steel*

*The calculation at admissible stresses*

*2. The elastic calculation of the sections in reinforced concrete 2.1 axial force 2.2 bending 2.3 eccentric axial force 2.4 shear 2.5 twist 2.6 adherence*

*3. Structural safety and limit states*

*3.1 limit state for axial stresses 3.2 limit state of cracking*

*4. Pre-stressed structures:  hints*

*Steel structures 5. General information 6. Characteristics of construction steels 7. Bolted and welded connection 8. Foundation-column connection, flange joint, corner joint, continuity joint 9. Stability of simple and coupled beams 10. Composite structures 11. Truss beams*

***Exercises and final tests*** *I EXERCISE reinforced concrete slab EXERCISE II: steel structure*

## READINGS/BIBLIOGRAPHY

*ELIO GIANGRECO, Teoria e tecnica delle costruzioni, Liguori editori*
*Luda copy, notes on steel structures*
*CNR 10011-85 steel structures,*
*actual codes, last edition*

## TEACHING METHODS OF THE COURSE (OR MODULE)

Lessons and exercises

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☑ Other : Preliminary written test

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☑ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The exam consists of an oral interview with or without an unsuccessful introductory written test. During the oral interview, students are asked to demonstrate a good command of the theoretical topics covered and to illustrate the project exercises carried out in itinere
Overall evaluation

# COURSE DESCRIPTION
# LABORATORY OF CONSTRUCTION TECHNIQUE

# SSD: TECNICA DELLE COSTRUZIONI (ICAR/09)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL:
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 12

### REQUIRED PRELIMINARY COURSES

***Scienza delle Costruzioni***

### PREREQUISITES

***Statica and Scienza delle Costruzioni***

### LEARNING GOALS

*The purpose of the course is to provide the foundations of an analysis methodology aimed at understanding the problems related to the structural design. The goal is to provide the ability for proceeding with the conception, sizing and verification of very simple structural types made in different building materials, so that the future architectural designer, although not able to replace the structural engineer, can competently proceed to the preliminary dimensional setting of simple architectural works.*

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

*During the five years, through lectures, seminars and laboratory activities, the student knows the issues related to the conception and general calculation of the structures as integrated elements of the elaboration of the architectural project in the various fields of its application and understands the interconnections with the other disciplines that contribute to the formation of the architectural project.*

**Applying knowledge and understanding**

*The student develops the ability to apply the theoretical and methodological knowledge related to the structural aspects of the architectural project and to produce general and simple design drawings by comparing themselves with the different degrees of depth of the architectural project, at the different scales and in the different areas of its application.*

## COURSE CONTENT/SYLLABUS

*Theoretical Lectures:*

*The principles of structural safety will be analyzed, focusing on the semi-probabilistic approach to limit states at the base of the design according to current codes. The physical-mechanical characteristics of the materials composing Reinforced Concrete will be described (mechanical properties, constitutive relationships for steel and concrete, bond, shrinkage and viscosity). The design and verification of reinforced concrete sections at the serviceability limit states and at the ultimate limit state loaded by normal stress, bending moment, and combined and shear will be studied, in order to introduce the verification and design of the main structural elements (beams, columns, slabs, frames). Continuous beams and frames with different methods (force method, displacement method, Cross method, Grinter method) will be studied. The principles and criteria for the design of direct and indirect foundations will be provided. The general principles of steel structures will be analyzed, too: the material, the fundamentals of the project, structural systems, welded unions, bolted unions. The course will analyze the general principles of masonry structures and the related construction materials. The basis for safety checks for ordinary masonry buildings will be provided. Behaviors out-of-plane and in-plane for the walls will be analyzed. The basis for the calculation of structures built in seismic risk areas will be provided.*

*Practical Lectures:*

*Exercise 1: Design of a reinforced concrete slab*

*Exercise 2: Design of a reinforced concrete frame*

## READINGS/BIBLIOGRAPHY


- *E. Cosenza, G. Manfredi e M. Pecce, “Strutture in cemento armato - Basi della progettazione”, Hoepli.*
- *“Norme Tecniche per le Costruzioni” (D.M. 17/01/2018).*
- *Istruzioni per l’applicazione dell’Aggiornamento delle “Norme Tecniche per le Costruzioni” di cui al D.M. 17/01/2018 - Circolare n°. 7 del 21/01/2019.*
- *G. Ballio, F.M. Mazzolani, C. Bernuzzi e R. Landolfo, “Strutture di acciaio” - Teoria e progetto”, Hoepli.*

- *CNR 10011-85 Costruzioni in acciaio.*
- *L. Boscotrecase, F. Piccarreta, "Edifici in muratura in zona sismica - Nuove costruzioni - consolidamento dell'esistente - La teoria e la tecnica", Dario Flaccovio Editore.*

## TEACHING METHODS OF THE COURSE (OR MODULE)

***Lessons and exercises***

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [x] Written
- [x] Oral
- [x] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- [ ] Multiple choice answers
- [ ] Open answers
- [x] Numerical exercises

**b) Evaluation pattern**

*Overall evaluation.*

# COURSE DESCRIPTION
# LABORATORY OF CONSTRUCTION TECHNIQUE

# SSD: TECNICA DELLE COSTRUZIONI (ICAR/09)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: CASAPULLA CLAUDIA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 04 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I
CFU: 12

### REQUIRED PRELIMINARY COURSES

Scienza delle costruzioni

### PREREQUISITES

Knowledge of structural mechanics

### LEARNING GOALS

The main goal of the course is to provide the basis of a methodology for the analysis and design of structures, in accordance with current national and international regulations. The issues are related to the conception, sizing and verification of simple structures made of typical building materials. Particular attention is devoted to seismic risk reduction strategies, both with reference to new buildings and to the vulnerability of existing ones.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

During the five years and through lectures, seminars and laboratory activities, the student knows the issues related to the conception and general calculation of the structures as integrated elements of the elaboration of the architectural project in the various fields of its application. He/she also understands the interconnections with the other disciplines that contribute to the formation of the architectural project.

**Applying knowledge and understanding**

The student develops the ability to apply the theoretical and methodological knowledge related to the structural aspects of the architectural project and to produce general and simple design drawings by comparing themselves with different degrees of in-depth analysis of the architectural project, at different scales and in different areas of its application.

## COURSE CONTENT/SYLLABUS

STRUCTURAL SAFETY

•Reference limit states. Serviceability and ultimate limit states
•Structural load analysis
•Current national and international building codes
•Methods of analysis for civil/ordinary buildings

DESIGN AND VERIFICATION OF REINFORCED CONCRETE CROSS SECTIONS, ELEMENTS AND STRUCTURES USING LIMIT STATE ANALYSIS

•R.C. beams under shear-bending conditions
•R.C. cross section: serviceability and ultimate limit states
•Failure modes of the R.C. cross section under normal stresses and propagation of cracks in R.C. beams
•Ductility of R.C. members at the cross-section, element and structural level
•Capacity design
•Design and analysis of the R.C. cross section in terms of bending capacity and ductility requirements, with and without normal compression

STEEEL STRUCTURES

•Elastic and plastic behaviours of steel
•Theory of plasticity for steel elements subjected to axial forces
•Theory of plasticity for steel elements subjected to bending moments. Clamped-clamped beam subjected to increasing vertical loads till collapse
•Plastic hinge
•Plastic limit theorems. Static and kinematic theorems. Uniqueness of the solution
•Limit analysis design

SEISMIC ANALYSIS OF STRUCTURES

•Dynamic analysis f the single-degree-of-freedom (SDOF) system
•Introduction to the seismic design
•Response spectrum analysis

MASONRY STRUCTURES

•Masonry as no-tension material. Masonry behaviour in the elastic and post-elastic fields till collapse
•Box-type behaviour
•In-plane and out-of-plane failure modes
•Limit analysis
•Seismic vulnerability of structural typologies: the wall, the arch, the three-wall system

## READINGS/BIBLIOGRAPHY

Cosenza E., Manfredi G., Pecce M. –Strutture in cemento armato - HOEPLI, Milano, 2021.
Jossa P. –Problemi della Tecnica delle Costruzioni –II Edizione, 2 Voll, Aracne Editrice, Roma, 2011.
Mezzina M. - Fondamenti di Tecnica delle Costruzioni - CittàStudi Edizioni, 2021.
Perrone V. –Plasticità - stampato dalla Litografia Nicola Libero, Napoli 1997.
D.M. –17/01/2018, Norme Tecniche per le Costruzioni (NTC 2018), G.U. n. 42 del 20/02/2018, Suppl. Ordinario n. 8, 2018.
C.S.LL.PP. –Istruzioni per l'Applicazione dell'Aggiornamento delle 'Norme Tecniche per le Costruzioni' di cui al D.M. 17/01/2018 - Circolare 21 gennaio 2019, n. 7, Poligrafico dello Stato, Roma, 2019.
D.P.C.M. –Linee Guida per la valutazione e riduzione del rischio sismico del patrimonio culturale –allineamento alle nuove Norme tecniche per le costruzioni (relative al D.M. 14/ 01/2008) –G.U. n. 47 del 26/02/2011, Suppl. Ordinario n. 54, 2011.

## TEACHING METHODS OF THE COURSE (OR MODULE)

Lessons and exercises.
Inter-course tests:
1) Design of a simple steel structure using limit analysis
2) Limit analysis of masonry wall systems under out-of-plane loading
Lab project: Design of a steel or R.C frame in seismic area, to be mostly developed within the course lessons.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- ☐ Written
- ☑ Oral
- ☑ Project discussion
- ☑ Other : 2 inter-course tests (1 per semester)

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

Overall evaluation

# COURSE DESCRIPTION
# SURVEY AND PROFESSIONAL PRACTICE

# SSD: ESTIMO (ICAR/22)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: CERRETA MARIA
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 01 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 6

### REQUIRED PRELIMINARY COURSES

There are no required preliminary courses.

### PREREQUISITES

There are no prerequisites.

### LEARNING GOALS

The teaching aims to make students acquire, in-depth, the procedures for estimating the market and cost values of assets (real estate, building areas, agricultural land), as well as the methods and tools for evaluating the economic and multidimensional aspects of architectural, urban planning, conservation and restoration projects at different spatial and urban scales.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of issues related to the procedures for estimating costs, prices, and rates of return on investments, as well as the evaluation of the

impacts of project alternatives in economic, social, and environmental terms through the use of quanti-qualitative multi-criteria evaluation methods. This knowledge constitutes the fundamental skills that the student should be able to acquire, understand, and manage in postgraduate professional practice.

**Applying knowledge and understanding**

The student should be able to structure and operationally solve decision-making problems related to the evaluation of project alternatives not only in economic terms (through the application of cost estimation procedures, cost-revenue and cost-benefit analyses), but also by extending the application of the acquired methodological tools to the evaluation of social and environmental dynamics in different investigation contexts.

## COURSE CONTENT/SYLLABUS

1. Estimation and valuation (1 CFU): The principles of estimation theory. Economic aspects of assets. Use value, market value, cost value, complementary value, transformation value, subrogation value. Sustainable development and valuations. Total Economic Value and Complex Social Value.
2. Elements of microeconomics and financial mathematics (1 CFU): Production cost theory, market models, consumer and producer surplus, company equilibrium, financial mathematics.
3. Appraisal Procedures (2 CFU): Analytical procedures for estimating the market value of a property, a farmland and a building area. Synthetic and intermediate procedures for estimating the market value of a property. Analytical, synthetic and intermediate procedures for estimating the cost value of building, urban and infrastructure interventions. International valuation standards.
4. Evaluation methods (2 CFU): Multi-criteria evaluations. Decision tree, impact matrix, rating scales, weight allocation, order of preference. Community Impact Evaluation (CIE), Analytic Hierarchic Process (AHP), EVAMIX method, REGIME method, ELECTRE method, PROMETHEE method, NAIADE method. Financial Analysis and Cost-Benefit Analysis.

## READINGS/BIBLIOGRAPHY

Lecturer's teaching materials entered into the web-teacher.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The teacher will use:

a) lectures for about 80 percent of the total hours;

b) exercises to explore practically theoretical aspects for 20 percent of the total hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [x] Written
- [x] Oral
- [ ] Project discussion

☐ Other

**In case of a written exam, questions refer to**

☑ Multiple choice answers

☑ Open answers

☐ Numerical exercises

**b) Evaluation pattern**

The written test and oral test are both held on the day of the exam, and each test weighs 50 percent of the final grade.

The outcome of the written test is not binding for the purpose of the admission the oral exam; the number of answers will not be evaluated but their general correctness.

# COURSE DESCRIPTION
# SURVEY AND PROFESSIONAL PRACTICE

# SSD: ESTIMO (ICAR/22)

DEGREE PROGRAMME: ARCHITETTURA (N14)
ACADEMIC YEAR 2022/2023

## COURSE DESCRIPTION

TEACHER: DE TORO PASQUALE
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## GENERAL INFORMATION ABOUT THE COURSE

INTEGRATED COURSE: NOT APPLICABLE
MODULE: NOT APPLICABLE
CHANNEL: 02 Cognome A - Z
YEAR OF THE DEGREE PROGRAMME: IV
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER II
CFU: 6

### REQUIRED PRELIMINARY COURSES

There are no required preliminary courses.

### PREREQUISITES

There are no prerequisites.

### LEARNING GOALS

The teaching aims to make students acquire, in depth, the procedures for estimating the market and cost values of assets (real estate, building areas, agricultural land), as well as the methods and tools for evaluating the economic and multidimensional aspects of architectural, urban planning, conservation and restoration projects at different spatial and urban scales.

### EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

**Knowledge and understanding**

The student must demonstrate knowledge and understanding of issues related to the procedures for estimating costs, prices, and rates of return on investments, as well as the evaluation of the

impacts of project alternatives in economic, social, and environmental terms through the use of quanti-qualitative multi-criteria evaluation methods. This knowledge constitutes the fundamental skills that the student should be able to acquire, understand, and manage in postgraduate professional practice.

**Applying knowledge and understanding**

The student should be able to structure and operationally solve decision-making problems related to the evaluation of project alternatives not only in economic terms (through the application of cost estimation procedures, cost-revenue and cost-benefit analyses), but also by extending the application of the acquired methodological tools to the evaluation of social and environmental dynamics in different investigation contexts.

## COURSE CONTENT/SYLLABUS

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*2. Elements of microeconomics and financial mathematics (1 CFU):* Production cost theory, market models, consumer and producer surplus, company equilibrium, financial mathematics.
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*4. Evaluation methods (2 CFU):* Multi-criteria evaluations. Decision tree, impact matrix, rating scales, weight allocation, order of preference. Community Impact Evaluation (CIE), Analytic Hierarchic Process (AHP), EVAMIX method, REGIME method, ELECTRE method, PROMETHEE method, NAIADE method. Financial Analysis and Cost-Benefit Analysis.

## READINGS/BIBLIOGRAPHY

Lecturer's teaching materials posted on the teacher’s webpage.

## TEACHING METHODS OF THE COURSE (OR MODULE)

The teacher will use: a) lectures for about 80 percent of the total hours; b) exercises to explore practically theoretical aspects for 20 percent of the total hours.

## EXAMINATION/EVALUATION CRITERIA

**a) Exam type**

- [x] Written
- [x] Oral
- [ ] Project discussion
- [ ] Other

**In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☑ Open answers
- ☐ Numerical exercises

**b) Evaluation pattern**

The written test and oral test are both held on the day of the exam, and each test weighs 50 percent of the final grade.

The outcome of the written test is not binding for the purpose of the admission the oral exam; the number of answers will not be evaluated but their general correctness.