



**Università
degli Studi
di Ferrara**

CALL FOR APPLICATION

INTERNATIONAL SUMMER SCHOOL

AFTER THE DAMAGES

**Prevention and safety solutions through design
and practice on existing built environment.**

The Italian experience

ONLINE EDITION

JULY 2020

SUBMISSION DEADLINE:

31st MAY 2020 23:00 CET

Art. 1. GENERAL
INFORMATION
HEADQUARTER
DIRECTION
TECHNICAL-SCIENTIFIC
COMMITTEE

The Summer School “After the Damages” 2020 Edition is an intensive two-week e-learning program addressed to the participation of students and graduates, public administration managers, government agencies, international organizations, researchers, specialists and professionals according to an interdisciplinary view, aimed at training participants on risk management and reduction applied to built and cultural heritage.

The Operational Headquarter is:
Department of Architecture, University of Ferrara
via della Ghiara 36 • 44121 • Ferrara • Italy

The School is organized by the Department of Architecture of the University of Ferrara, DIAPReM Centre – Development of Integrated Automatic Procedures for Restoration of Monuments, Labo.R.A. (Workshop for the Conservation of built heritage) and LEM (Building and environment maintenance and management) Research Laboratories, and TekneHub industrial research laboratory, in cooperation with:

- University of Parma, Department of Engineering and Architecture;
- University of Modena and Reggio Emilia, “Enzo Ferrari” Engineering Department;
- Agenzia per la Ricostruzione Sisma 2012 (Regional Agency for Reconstruction);
- MiBACT, Soprintendenza Archeologica, Belle Arti e Paesaggio per la città metropolitana di Bologna e le province di Modena, Reggio Emilia e Ferrara (Authority for Archaeology, Fine Arts and Landscape);
- IBACN, Istituto per i beni artistici, culturali e naturali, Emilia-Romagna Region (Institute for Artistic, Cultural and Natural Heritage of the Emilia-Romagna Region).

School Heads are:

Prof. Marcello BALZANI
Prof. Riccardo DALLA NEGRA
Prof. Roberto DI GIULIO.

Technical-Scientific Committee:

- Cristina AMBROSINI, Authority for Archaeology, Fine Arts and Landscape for the metropolitan city of Bologna and the provinces of Modena, Reggio Emilia and Ferrara;
- Marcello BALZANI, University of Ferrara;
- Roberto BALZANI, Institute for Artistic, Cultural and Natural Heritage of the Emilia-Romagna Region;
- Alessandro CAPRA, University Modena and Reggio Emilia;
- Cristina CASTAGNETTI, University Modena and Reggio Emilia;
- Enrico COCCHI, Regional Agency for Reconstruction – “Sisma 2012”, Emilia-Romagna Region;
- Eva COÏSSON, University of Parma;
- Riccardo DALLA NEGRA, University of Ferrara;
- Roberto DI GIULIO, University of Ferrara;
- Maria Luisa LADDAGO, Authority for Archaeology, Fine Arts and Landscape for the metropolitan city of Bologna and the provinces of Modena, Reggio Emilia and Ferrara;
- Antonino LIBRO, Regional Agency for Reconstruction – “Sisma 2012”, Emilia-Romagna Region;
- Federica MAIETTI, University of Ferrara;
- Manlio MONTUORI, University of Ferrara;
- Fabiana RACO, University of Ferrara;
- Chiara VERNIZZI, University of Parma.

Art. 2. EDUCATIONAL METHODS

The course is developed through distance learning method (asynchronous or synchronous lectures) thanks to the cooperation with the Se@ Centre for Communication, Innovation and Distance Learning Technologies of the University of Ferrara.

The course is open to **25 available positions**.

Admission to the Summer School are based on a selection process. The registration procedures for the selection are explained in Articles 17 – 20 of this announcement.

Lectures will be in English; the teaching material will be provided in English as well.

- Art. 3. COURSE DURATION
- The course lasts two weeks and consists of 104 hours of educational activities as follows:
- lectures (frontal teaching activity) 40 hours;
 - virtual tours and thematic visits on selected case studies 20 hours;
 - seminar/workshop activities 20 hours;
 - individual work aimed at the final workshop 24 hours.
- Art. 4. CREDITS
- Neither university nor professional training credits are foreseen.
- Art. 5. OBJECTIVES, AIMS AND PROFESSIONAL OPPORTUNITIES
- OBJECTIVES**
- The course aims to promote the development of different awareness and skills:
- knowledge and sharing of international best practice cases related to risk management processes, first, and reconstruction phases, then, in relation to policies, urban and territorial planning tools, economic-financial tools and intervention techniques;
 - knowledge of integrated technologies, procedures and tools for the survey and analysis of damage related to natural and anthropic disasters;
 - ability to apply an integrated approach to risk management aimed at damage mitigation actions and more effective emergency management;
 - ability to communicate with different target audiences (expert and non-expert) in the emergency management and reconstruction phases;
 - ability to apply integrated monitoring tools and methods to the management of risks related to natural and anthropic disasters to which existing built assets are exposed.
- PURPOSES**
- The course aims to train a wide range of technical and managerial skills supporting the upgrading of experts in the management and prevention of risks related to the effects of environmental and human disasters on the existing built heritage and Cultural Heritage. The Course supports both the development of the necessary knowledge of technical tools and the acquisition of cross-disciplinary skills and behavioural skills necessary to manage complex decision-making processes.
- Among the knowledge and skills expected as a result of the Summer School are:
- integrated policies and tools for risk management and a more aware integrated risk management, both related to natural and anthropic events;
 - good practices related to policy models to support emergency and risk management, sharing and accessibility of digital databases, definition of intervention strategies for historical architecture; models and databases aimed at preserving historical buildings; models for vulnerability assessment and prevention actions;
 - integrated monitoring strategies for existing built heritage aimed at strengthening integrated risk management approaches learning from Faculty members experiences, including the impact of the application of advanced surveying and integrated diagnostics tools for the development of existing built heritage monitoring systems and the impact of the application of integrated technologies and platforms for predictive maintenance of built heritage;
 - skills related to a holistic approach to complex and articulated issues related to disaster events, risk mitigation, documentation and monitoring activities;
 - skills related to the analysis of the interactions between expected damage and conscious planning;
 - coordination skills between the construction sector applied to refurbishment and restoration and the emergency management sector.
- PROFESSIONAL OPPORTUNITIES**
- The skills acquired in the Summer School can be applied in public administrations, institutes and national and international agencies in the field of prevention and management of risks related to environmental and anthropic events on the built environment, as well as in engineering and architectural design firms, both nationally and internationally.
- Art. 6. EDUCATIONAL ACTIVITIES CALENDAR
- The Summer School will start on Wednesday **1 July, 2020**.
- Lectures will take place every day, from Monday to Friday, according to the calendar provided by the course coordinator.
- Art. 7. ATTENDANCE REQUIREMENTS
- In order to complete the Summer School and obtain the certificate of attendance and achievement of activities, it is mandatory to attend at least 75% of the lessons, synchronous or asynchronous.

Art. 8. TRAINING ACTIVITIES AND
FINAL ASSESSMENT

The description below is intended to provide an overview of the main contents of the educational activities of the course, designed to meet disaster risk-related training goals.

<i>COURSE TOPICS</i>
<p>The Summer School is primarily aimed at deepening methodologies for the analysis, mitigation, and risk management, focusing on:</p> <ul style="list-style-type: none"> – built heritage, natural hazards and climate change; – understanding of risk, strengthening decision-making in risk management and solutions in risk reduction; – data collection for the documentation of the interventions necessary to risk reduction; – built Cultural Heritage in the Disaster Risk Management (DRM) approach.
<p>Training activities related to the construction site and new protocols for post-pandemic management: prevention, safety, and health issues.</p>
<p>Keynotes, Lectures, and workshops on resilience, governance, legal, economic and socio-economic aspects, including:</p> <ul style="list-style-type: none"> – post-disaster participatory governance tools supporting communities with a resilient attitude; – highlight the local identity for the construction of intangible resilience in historic urban contexts; – governance strategies aimed at environmental, social and economic resilience; – community involvement in DRM to strengthen governance and stakeholder decision-making capacities in monitoring and reducing risks, towards predictive and reactive action in case of disaster.
<p>Educational activities, workshops and seminars of interactive teaching on monitoring, survey and data modeling, integrated diagnostic survey, digitization of complex systems, Building Information Modeling, including:</p> <ul style="list-style-type: none"> – innovative methods of integrated survey by applying protocols and 3D modeling also in parametric environment for the conservation of the built Cultural Heritage; – monitoring of deformations through continuous acquisitions and long time series; – deformation monitoring with fiber optic sensors; – multispectral images to improve Urban Search And Rescue (USAR) operations in surveillance over large areas and for monitoring collapsed or cooperating buildings.
<p>Knowledge sharing by deepening design solutions such as:</p> <ul style="list-style-type: none"> – tools for an aware design applied to the conservation of the historic built heritage; – seismic vulnerability assessment and innovative solutions for the improvement of the anti-seismic behaviour of aggregated built heritage.
<p>For the first edition, due to the restrictions imposed by social distancing, the scheduled thematic visits are virtually experienced broadcasting on-line events from:</p> <ul style="list-style-type: none"> • Collegiate Church of Santa Maria Maggiore in Pieve di Cento, Bologna; • Santa Maria Maggiore Cathedral in Mirandola, Modena; • Palazzo Schifanoia in Ferrara; • Palazzo Sartoretti in Reggiolo, Reggio Emilia; • The Compound of San Pietro, Modena.

At the end of the two-week Summer School, a final assessment will be held, consisting of a design simulation, and related discussion of the strategies adopted, on the topics covered by the course.

The design simulation will consist in the proposal (paper or project) of intervention solutions for the management and mitigation of risk, selecting a specific area (in participants countries or in Italian contexts), and may include integrated interdisciplinary aspects consistent with the holistic approach proposed in the teaching activities.

The final assessment is set up to accredit to participants the acquisition of skills and knowledge on DRM by simulating realistic circumstances that focus on a topic of interest to the candidate or assigned by the Summer school tutors panel.

The **final assessment is scheduled on Wednesday, July 15, 2020** and will take place in the virtual room of the e-learning platform.

- Art. 9. PREREQUISITES
- Master of Science degree in one of the following areas is a prerequisite to the course when applying for the selection:
- Architecture and Civil engineering;
 - Industrial and Information Engineering;
 - Geophysical Sciences;
 - Humanities;
 - Economics and Statistics;
 - Political and Social Sciences.
 - Law Sciences;
 - Mathematics and Computer Science;
 - Historical and pedagogical sciences.
- Candidates with a Master of Science degree in other areas than those listed above will be admitted at the Committee' discretion.*
- Art. 10. PARTICIPANTS MINIMUM NUMBER AND WITHDRAWAL OF COURSE ACTIVATION
- The activation of the Course is revoked if a minimum number of enrolments of at least 20 is not reached.
- In this case, it will be communicated by notice on the website www.afterthedamages.com.
- Art. 11. SELF-CERTIFICATIONS
- Please note that the person concerned is personally responsible for what they declare; if the Public Authority has a well-founded doubt on the truthfulness of what has been declared, then it shall perform suitable checks and adopt any measures where applicable.
- Art. 12. ENROLMENT FEES
- The registration fee is € 3.000.00
- For the edition from 1 to 15 July 2020, 20 training vouchers are available to cover the full registration fee so **the Course is free of charge for those selected**.
- Art. 13. ENROLMENT ON OTHER INSTITUTIONS
- Simultaneous enrolment in other university, post-graduate and continuing education courses (PhD programmes, Degree or Master programmes) is allowed.
- Art. 14. ATTENDANCE CERTIFICATE
- At the end of the course, the final certificate of participation in the International Summer School will be issued, together with the University of Parma and the University of Modena and Reggio Emilia.
- The certificate will attest the participation in the course activities. The achievement of the certificate of attendance of the Summer School "After the Damages" is under the fulfilment of the following criteria:
- Attendance of at least 75% of the activities;
 - Filling in of the initial motivation questionnaire and the final evaluation questionnaire;
 - Discussion of the final project simulation at the end of the course.
- Art. 15. PERSONAL DATA PROCESSING
- Personal data shall be processed by the University of Ferrara lawfully, fairly and in a transparent manner in relation to the management of the "After the Damages" course activities as well as in compliance with the principles, conditions and more generally with the provisions of Regulation (EU) 2016/679 (General Data Protection Regulation, hereinafter GDPR).
- The University of Ferrara shall take appropriate measures to provide all the information as to in Articles 13 and 14, as well as the communications provided for in Articles 15 to 22 and Article 34 of the GDPR, concerning the processing of personal data.
- Personal data shall be collected for the specified purpose of the didactical activities and not further processed in a manner that is incompatible with those purposes and processed in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures ('integrity and confidentiality').
- Art. 16. INFORMATION
- The Coordination and Support Office can provide additional information | E-mail afterdamages@unife.it.
- Art. 17. ADMISSION CRITERIA
- Admission to the Summer School is based on a selection consisting on the assessment of scientific and professional qualifications and an online interview, as described below.
- Applicants must submit the required documents, as specified in Art. 18 of the present

call including the Application Form, a copy of a valid identity document (i.e., identity card or passport), the Curriculum Vitae, and a cover letter. In particular:

- the **Application form** must be appropriately filled in, dated, and signed.
- the **Curriculum Vitae** must comprehensively explain the candidate's achievements and qualifications by highlighting previous scientific and professional experiences, and must be dated and signed.

In addition to contact details, in the end, before dating and signing, it should include the following authorization:

In compliance with Regulation EU 2016/679 "General Data Protection Regulation – GDPR" and the Italian D.Lgs. 30 June 2003 n.196 "Code regarding the protection of personal data", I hereby authorize the recipient of the application to use and process my personal details for the purpose of recruiting and selecting staff."

- The **Cover letter** must describe personal motivations to attend the course, by explaining:
 - a. Motivations for participating in the course consistently with personal specialization areas, possible applicability and skills development;
 - b. Short and medium-long term objectives that contribute to the choice of the Summer School as a tool to achieve these goals;
 - c. Scientific-professional strengths, describing experiences, knowledge and skills highlighting particular attention to the strategic activities of the course.

The Selection Committee will assess the applications received on the basis of the following criteria:

QUALIFICATION ASSESSMENT	Max grades
1. Evaluation of academic qualification: Master of Science degree grade	10/100
2. Relevance of the thesis to the topics of the Summer School	10/100
3. Curriculum vitae: assessment of Postgraduate Degree qualifications (i.e., Ph.D., Master, and Specializing Master), additional scientific and academic experiences and professional experiences	40/100
Max grade for qualifications assessment	60/100
ONLINE INTERVIEW	
4. Motivational Interview in English language	40/100

Based on the Qualifications assessment, applicants admitted to the interview via web platform - according to the indications established by the Selection Committee - will be notified via email. The ranking list will be also published on the official website of the Summer School, together with all the details (link, timing, requirements, etc.) related to the interview.

The interview will take place on **June 9, 2020 from 9:30 am CET** via GoToMeeting platform; the access link will be sent in advance. In the case of a large number of applications, the interviews may be extended to June 10-11, 2020.

At the end of the interviews, eligible applicants are admitted to the Summer School according to the ranking based on the overall score (qualifications and interview), up to fill the 20 available positions. In the event of a tie, the candidate with the highest score in the qualifications evaluation will precede the candidate with the highest score. In the event of a further tie, it precedes the candidate who is younger in age.

Before the interview begins, candidates must show the valid identity document uploaded with their application for identification; failure to do so will result in exclusion from the selection process.

This announcement has full notification value: therefore, if notice of exclusion from the selection is not communicated in advance, candidates are required to access the interview platform without any further notice. Failure to participate in the interview on the day or at the time scheduled is considered a reason leading to the exclusion from the selection process.

1. the **application form** [.pdf] filled in;
2. a copy of the identity card or other **identification document**;

3. Scientific and/or Professional **Curriculum Vitae** [.pdf];
4. **Cover letter** explaining:
 - motivations for participating in the course consistently with personal specialization areas, possible applicability and skills development;
 - short and medium-long term objectives that contribute to the choice of the Summer School as a tool to achieve these goals;
 - scientific-professional strengths, describing experiences, knowledge and skills highlighting particular attention to the strategic activities of the course.

Total size limit for ALL documents to be delivered is 15Mb

Please note that the person concerned is personally responsible for the declaration accuracy; if the Public Authority has a well-founded doubt on the truthfulness of what has been declared, then it shall perform suitable checks and adopt any measures where applicable.

No application procedure other than online as described above. Candidates who do not apply in accordance with the procedures and deadlines indicated above will not be admitted to the selection.

Any communication to candidates will be sent to the e-mail address entered in the Application Form.

Art. 19. RANKING AND ENROLMENT

By 19 June 2020, at the end of the selection procedure, selected candidates will be notified by email and it will be possible to check their ranking position by logging in to the official web site www.afterthedamages.com.

Art. 20. RENOUNCE AND REPLACEMENT

Any vacant position due to the formal withdrawal by selected candidates before the start of the course will be made available according to the ranking list. It will be possible to check positions availability by logging in to the Summer school web site www.afterthedamages.com.