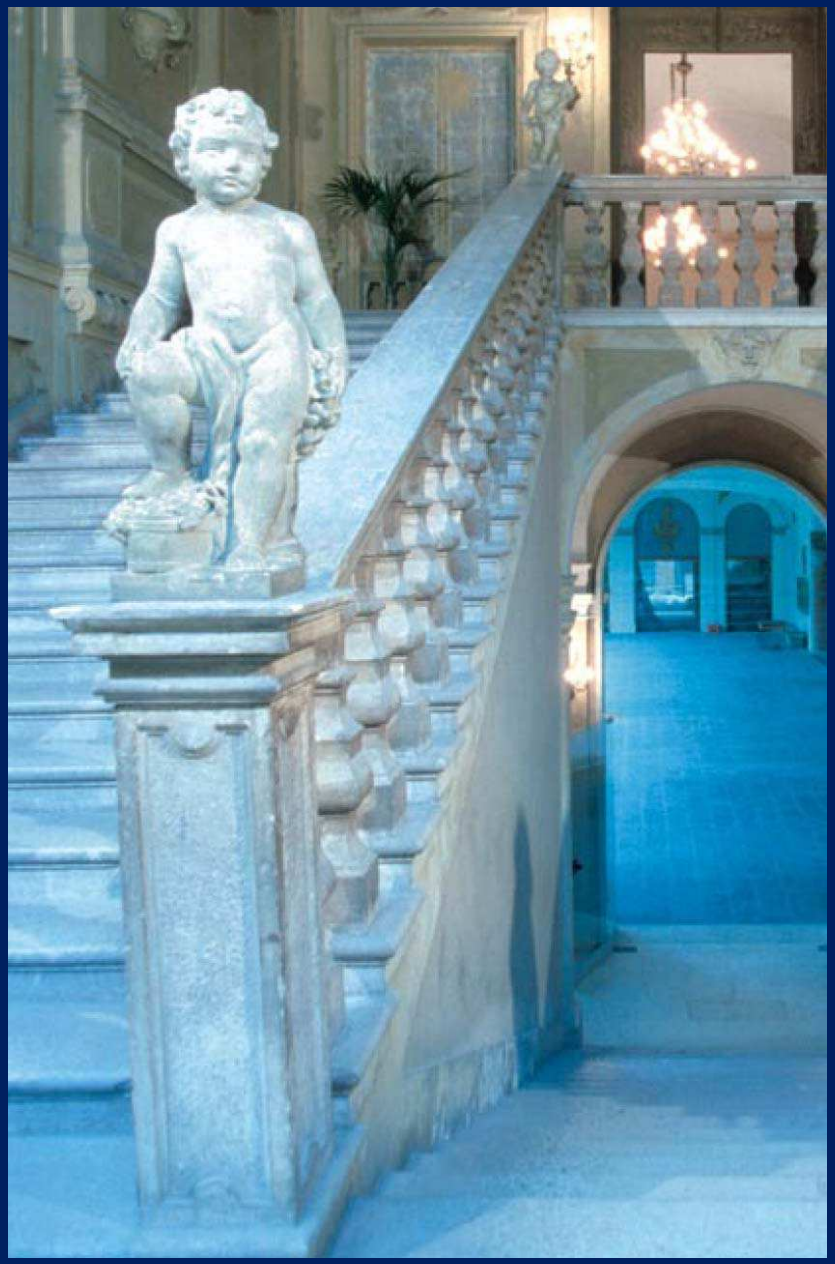

University of Ferrara

600 YEARS OF LOOKING FORDWARD

IUSS - Ferrara 1391

WELCOME TO THE UNIVERSITY INSTITUTE FOR HIGHER STUDIES IUSS-FERRARA 1391

The University of Ferrara shows its outstanding **international character** establishing privileged and **cooperative relationships with scientific and educational Institutions** and other organisations through the world.

Multilateral cooperation with several Universities and other organisations aims to share and join **scientific competence** and direct experience as well as to develop **innovative projects** in educational and research areas.

The University Institute for Higher Studies, **IUSS - Ferrara 1391**, is a structure that offers university courses at the undergraduate and graduate level with the **highest qualification**.

IUSS-Ferrara 1301 was established by the University of Ferrara in **February 2005**.
The activities of the Institute can be found on **http://iuss.unife.it**.

Since fall 2005 organisation and **teaching activities** of IUSS-Ferrara 1391 are based in via Scienze 41/b.

Prof. **Roberto Bin**
IUSS-Ferrara 1391 Director

Mail: roberto.bin@unife.it

FACILITIES FOR PHD STUDENTS

IUSS Residencial College

IUSS-Ferrara 1391 has its own **student accommodation**, which comprises a social and cultural center allowing PhD students to stay in Ferrara and get to **know students from other universities in Italy and abroad.**

Post graduates and researchers from other universities in Italy or abroad can also stay at the IUSS student accommodation, making use of the facilities and enjoying the benefits associated with **communal living**.

Students without scholarship are accommodated with a **reduced price.**

University accommodation includes a **private en suite bedroom with private balcony, bathroom and fridge**. Furthermore, the Residence offers to all students a living room with televisions, equipped kitchens with lockable cupboards, coin-operated washing machines and dryers. Wi-Fi connection is available in the common spaces, as well in the rooms.

http://iuss.unife.it/alloggi-en/il-collegio-dello-iuss-en

http://iuss.unife.it/scuole-en/bandi-iuss

FACILITIES FOR PHD STUDENTS

IUSS Stay Abroad Scolarships

The "Stay abroad scholarships" want to integrate with a **period abroad the research activities for the PhD thesis,** carried out through **international scientific cooperation**.

http://iuss.unife.it/scuole-en/bandi-iuss

Copernicus Visiting Scientists

Each year IUSS-Ferrara 1391 invites **Italian scholars resident abroad** and **international scholars** to stay in Ferrara for one month, with the aim of **achieving excellent teaching standards** at an international level.

Scholars must meet at least one of the following requirements:

- Have occupied the position of professor at a foreign university;
- Have received an international **scientific award of a high standard**;
- Have held a **managerial position** at an important International Research Institute;

http://iuss.unife.it/scuole-en/copernicus-visiting-scientists-1

ACTIVITIES FOR PHD STUDENTS

Complementary Skills

IUSS-Ferrara 1391 promotes and **organizes interdisciplinary cultural and scientific activities aimed at all postgraduate students**.
No matter what the subject of the Ph.D., proficiency in skills other than discipline-specific knowledge and research are important for success in science.

PLANNED ACTIVITIES:

- English language course
- Cambridge ESOL examinations (PET, FCE, CAE);
- Italian language course;
- IUSS lectures;
- Communication techniques;
- Intellectual Property Protection;
- Technology Transfer;
- Research organization, knowledge of the fund raising systems and search engines.

http://iuss.unife.it/scuole-en/attivita-trasversali?set_language=en

IUSS
Ferrara 1391

IUSS
FERRARA 1391

IUSS – Ferrara 1391 includes all the **Doctoral Programs** of the University, together with Undergraduate Honours Programs, **International Master Courses** and **Schools of Specialisation** that are selected every year by the University on the grounds of the aims of the Institute, with particular **attention to quality, internationality and adherence to the needs of the European Labour Market.**

http://iuss.unife.it/corsi-en

The activities of the Institute can be found on:
http://iuss.unife.it/corsi-en

PHD COURSES

The Research Doctorate programme is **three years in length** and it is the **highest academic degree**. Training activities, including **international experiences**, are focused to form high level researchers.

The title is awarded after the defense of a thesis. **Each student has a supervisor**. Students are admitted to doctoral courses after a selection established by a call for applications. **We have 12 PhD courses.**

There are near **400 doctoral students**, who are tutored and supervised by a large fraction of the **700 professors and researchers** of the University.

Many doctoral programs are in **collaboration with external research institutions** and **companies.**

IUSS
FERRARA 1391

DOCTORALS PROGRAMS

30 CYCLE

DOCTORALS PROGRAMS

30th Cycle Ph.D. courses - Academic Year 2014/15

- Architecture and urban planning
- Evolutionary biology and ecology
- European Union law and national legal systems
- Economics and management of innovation and sustainability
- Physics
- Mathematics
- Molecular medicine and pharmacology
- Biomedical sciences and biotechnology
- Chemistry
- Engineering science
- Earth sciences
- Humanities

http://www.unife.it/studenti/dottorato/corsi/courses

ARCHITECURE AND URBAN PLANNING

Coordinator: Prof. **Roberto di Giulio**
E-mail: roberto.digiulio@unife.it

The course has been activated through an international agreement between the Università degli Studi di Ferrara (Italy) and the Polis University of Tirana (Albania); the University of Malta participates in training and researching activities provided for the PhD.

The aim of the "*Architecture*" curriculum of the Joint PhD Programme is to strengthen the **synergistic cooperation of design, process and building.**

The field of interest ranges from technologies based **on innovative materials, to industrial design** (inclusive design) and **restoration and building maintenance** according environmental sustainability.

On the other side, the "**Urban Planning" curriculum** addresses the issues of public realm, with reference to the evolution and changes of the socio-economic and environmental context.

In particular, the role of the discipline is taken in consideration as a tool for **reading, understanding, planning and designing urban and territorial transformations in a sustainable development perspective**, with an interdisciplinary approach open to international comparison.

The PhD course shall **explore cross field research approaches** based on the research activities of the PhD Candidate, the active debate with the teachers (taking part at the joint sittings) and experts of real estate and construction market.

The researches shall be developed under an international scale.

According with this idea the goal of this PhD course is to increase as much as possible the skills of young researchers in way to lead them to excellence levels in scientific production related to the needs of the production industries (material and immaterial products), **public planning** structures and offices, and construction market alike.

http://www.unife.it/studenti/dottorato/corsi/riforma/architecture

EVOLUTIONARY BIOLOGY AND ECOLOGY

Coordinator: Prof. Guido Barbujani
E-mail: guido. barbujani@unife.itt

The course has been activated through an agreement between the Università degli Studi di Ferrara and the Università degli studi di Parma.

Evolutionary Biology and Ecology are an integrated area of research which in many prominent scientific institutions belong to the same Department.
The graduate program in Evolutionary Biology and Ecology focuses on the **study of biological diversity and its evolution**, of **animal behavior, and of the relationships of all living creatures**, including humans, among them and with the environment.

By integrating information ranging from the molecular level to the levels of the organism, the population and the community, graduate students are encouraged to develop their **research in both basic and applied fields of investigation**.
Innovative methods are given a central role, both in fieldwork and in the laboratory and numerical analyses, the latter based on state-of-the-art bio **statistical and simulation methods**.
Therefore, the holder of a Ph.D. in Evolutionary Biology and Ecology will be a **highly qualified expert in the analysis and interpretation** of **biological processes** and in the management of natural resources, who will be able to independently plan and conduct empirical research, to thoroughly **exploit public bioinformatics resources**, to develop quantitative models and to **in-depth analyze biological data**.

http://www.unife.it/studenti/dottorato/corsi/riforma/biology

EUROPEAN UNION LAW AND NATIONAL LEGAL SYSTEMS

Coordinator: Prof. Alessandro Bernardi
E-mail: alessandro.bernardi@unife.it

In the perspective of the **internalization of teaching activities** pursued as primary objective by our University, the PhD in "European Union Law and national legal systems" is a **high-qualified scientific school.**

It is formed of **two curricula**, both focusing on a plurality of subjects, all of which displaying a direct or indirect European relevance. More in detail, the firs curriculum aims at **training professional legal experts** on the general issues related to the Europeanization of law.

The PhD candidate could then focus on the issues concerning the **institutional framework of European integration** or concerning the **constitutional problems** stemming from the relationship between national, supranational and international legal systems, with special focus on fundamental rights protection; or on the multiple issues related to the **European legal integration** in substantial and procedural criminal matters.

In the view of training a legal professional expert on the general issues concerning the Europeanization of law, the **second curriculum is intended to focus the issues related to specific EU policies**, implemented by means of secondary law sources, directly applicable in the national legal system or to be transposed into national law.

The **final objective of the PhD is that of training a legal expert fully aware of the complex issues related to the European integration process.**

- http://www.unife.it/studenti/dottorato/corsi/riforma/law
- http://giuri.unife.it/en?set_language=en

ECONOMICS AND MENAGEMENT OF INNOVATION AND SUSTENABILITY

Coordinator: Prof. Massimiliano Mazzanti
E-mail: massimiliano.mazzanti@unife.it

The program is designed to train Ph.D. research candidates who possess analytical skills in business economics, and theoretical and quantitative economics; while it integrates **basic economic tools, business economics, and statistics in a way unique to this curriculum.**

Research topics are ample but circumscribed in their inter-relation and specific characteristics, and allow for the introduction of **analytical factors related to information systems, business management and organizational processes**, as well as the management of complex socio-economic and policy phenomena on regional and macro-economic levels.

Regional issues are emphasized with the aim of efficiently cooperating with local businesses and institutions while keeping with the thematic research areas and specific expertise of department faculty.

Complementarity between thematic areas (economics, business economics, and within the lines that define these macro-areas) and **levels of analysis** (micro-macro, business-public institutions) is directed towards fostering skills which are **highly applicable on the regional, Italian, and European job market.**

http://www.unife.it/studenti/dottorato/corsi/riforma/economics

PHYSICS

Coordinator: Prof. Vincenzo Guidi
E-mail: vincenzo.guidi@unife.it

The program is designed to train Ph.D. research candidates who possess **analytical skills in business economics, and theoretical and quantitative economics**; while it integrates basic economic tools, business economics, and statistics in a way unique to this curriculum. Research topics are ample but circumscribed in their inter-relation and specific characteristics, and allow for the introduction of analytical factors related to **information systems, business management and organizational processes**, as well as the **management of complex socio-economic** and policy phenomena on **regional and macro-economic levels**.

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http://www.unife.it/studenti/dottorato/corsi/riforma/physics

MATHEMATICS

Coordinator: Prof. Massimiliano Mella
E-mail: massimiliano.mella@unife.it

The Ph. D. Program in Mathematics is mainly aimed in training highly qualified professionals, with advanced skills on mathematical models and methods and able to use them also in interdisciplinary applications. They will be ready to work in universities, research institutes, industry, public administration as well as in independent commercial ventures.

The program is designed to develop an advanced understanding of basic fields of Mathematics and a thorough understanding of one major field of interest. Emphasis is placed on the abilities of recognizing significant research problems, of formulating solutions, and of transmitting successful outcomes to others. The present Doctoral Program is the natural completion of the Courses of "Laurea Magistrale" in Mathematics, but all the graduates with a scientific-technological master degree and with a strong background in Mathematics are well suited to attend the program. On the Doctoral program completion, a successful candidate is expected to be able to independently run research activity leading to relevant and original results.

The collaboration with domestic and foreign research institutions, including universities and possibly companies, are of relevant importance to accomplish all those objectives, and the Ph.D. students are invited to spend periods of study and research there.

http://www.unife.it/studenti/dottorato/corsi/riforma/mathematics

MOLECULAR MEDICINE AND PHARMACOLOGY

Coordinator: Prof. Antonio Cuneo
E-mail: antonio.cuneo@unife.it

The program is designed to train Ph.D. research candidates who possess **analytical skills in business economics**, and **theoretical and quantitative economics**; while it integrates basic economic tools, business economics, and statistics in a way unique to this curriculum.

Research topics are ample but circumscribed in their inter-relation and specific characteristics, and allow for the introduction of analytical factors related to information systems, **business management and organizational processes**, as well as the management of **complex socio-economic** and policy phenomena on **regional and macro-economic levels.**

Regional issues are emphasized with the aim of efficiently cooperating with local businesses and institutions while keeping with the thematic research areas and specific expertise of department faculty.

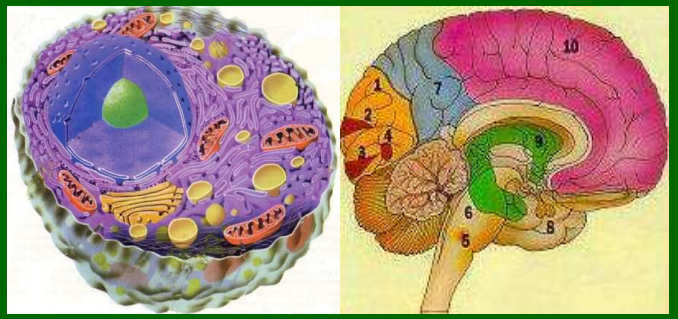
Complementarity between thematic areas (economics, business economics, and within the lines that define these macro-areas) and levels of analysis (micro-macro, business-public institutions) is directed towards fostering skills which are **highly applicable on the regional, Italian, and European job market.**

http://www.unife.it/studenti/dottorato/corsi/riforma/medicine

BIOMEDICAL SCIENCES AND BIOTECHNOLOGY

Coordinator: Prof. Francesco Bernardi and Silvano Capitani
E-mail: francesco.bernardi @unife.it ; silvano.capitani@unife.it

The PhD program in Biomedical Sciences and Biotechnology aims at training young scientists to **meet the demand of experts in the rapidly growing field of life, biomedical and clinical sciences**.
The fellows, through the training program devised to also **promote independent thinking, critical appraisal, personal responsibility and decision making** in a context of interdisciplinary programs, will obtain **top level research experience** and **technical skills with positive long term implications** for career prospects and employability.



PhD students will be prepared as:

I) molecular and cellular biologists with an integrated view of Basic research in Biochemistry, Molecular and Cell Biology, Genetics and Genomics, and will be well trained in cutting-edge technologies in Cellular and Molecular Hematology, Genomics, Proteomics, Bioinformatics;

II) biotechnologists who will also employ the most advanced techniques in the fields of industrial production of biopharmaceutical products;

III) experts in molecular physiopathology of the endocrine, nervous and vascular systems, developing a wide range of technological and professional skills required to work at the forefront of cell neurobiology and of the integrated functions of the nervous system, of respiratory physiopathology and biology applied to exercise, of vascular diseases and of tissue regeneration. The core PhD programme activity is the experimental work, basis for the PhD thesis.

http://www.unife.it/studenti/dottorato/corsi/riforma/biomedical

Chemistry

Coordinator: Prof. Daniele Simoni
E-mail: daniele.simoni@unife.it

The PhD in Chemistry is a program for advanced academic education in the **area of chemistry and pharmaceutical sciences,** open to young graduates from Italy and abroad.
Its primary mission **is preparing highly qualified research doctors able to autonomously perform** and to lead research projects.
The PhD program aims **at increasing both the theoretical and practical skills** of its students. This goal will be achieved by offering to students **highly-qualified courses in specific research subjects**, on the one hand, and **by involving them in advanced research activities in fundamental and applied areas**, on the other. PhD students will be thus actively involved in innovative and **exciting programs and opportunities**.

The PhD School in the Department of Chemical and Pharmaceutical Sciences (DCFS) of The University of Ferrara involves a large number of researchers bringing a broad range of different competences and know-how in the **fields of Chemistry, Pharmaceutical Sciences and Technologies.**
Their long standing research and teaching experience offer to students the **possibility of growing in a stimulating and creative environment** where doctoral students will develop personal skills they will need to further develop their career. The PhD in Chemistry relies upon **a wide network of International relationships** and contacts thus offering to students **excellent opportunities of internationalization**.

http://www.unife.it/studenti/dottorato/corsi/riforma/chemistry

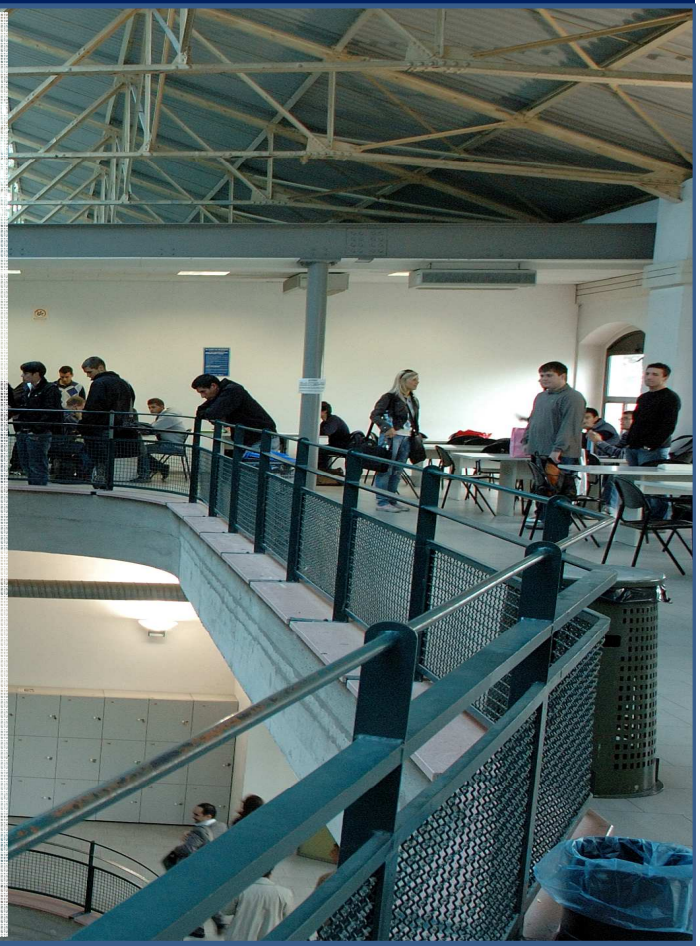
ENGINEERING SCIENCES

Coordinator: Prof. Stefano Trillo
E-mail: stefano.trillo@unife.it

The PhD program aims to train highly qualified professionals with specific preparation in the **different areas of engineering sciences to be employed in advanced scientific research institutions**, such as universities, research organizations, industries, public administration, and professional studies.

To this end, the **doctorate program provides general and specific educational activities** as well as an **individual research program**. The latter is agreed with the tutor who will supervise the research throughout the three years. This program focuses on a specific research topic, possibly at the **frontier of international research** in one of the three sub-areas of Engineering Sciences, each corresponding to one of the curricula in which the doctorate is articulated: Civil Engineering, Industrial Engineering, Engineering Information.

Overall, the PhD program aims: (I) to educate students to **the principles of basic and applied scientific research** with particular emphasis on issues of technology transfer and the advance of knowledge in the field of engineering, (II) to develop the **ability to cooperate in international research groups** and also in **close liaison with industrial research** to achieve given objectives, (III) to **train highly qualified research personnel** with specific expertise and skills in the methods and technologies related to the different areas of engineering.



http://www.unife.it/studenti/dottorato/corsi/riforma/engineering

EARTH SCIENCES

Coordinator: Prof. Massimo Coltorti
E-mail: massimo.coltorti@unife.it

The Course is intended to form highly qualified researchers in the field of basic and applied Earth Science disciplines being able to:

1) develop and realize **high level basic and applied researches in all the main sectors** of Earth Sciences both at the Universities and Research centers in Italy and abroad;
2) be **included in professional works with well qualified analytical and project skills**;
3) be **employed in public and private territorial Entities** with well qualified skills to handle complex and multifaceted problems related to environmental and territorial management.

In this respect the course includes the **whole range of Earth Sciences disciplines**: mineralogical, petrographical-geochemical, paleontological, geological and sedimentological, structural, hydrogeological, geomorphological and geophysical.

The training includes **the attendance to basic courses, seminars, summer schools of advances studies and stages in qualified scientific Institutions in Italy and abroad.**

Laboratory facilities are provided to the Course by the Department of Physics and Earth Sciences, University of Ferrara and by various associated Institutions in Italy and abroad to which the teachers of the Doctorate course have active collaboration.

http://www.unife.it/studenti/dottorato/corsi/riforma/earth

HUMANITIES

Coordinator: Prof. Angela Maria Andrisano
E-mail: angela.andrisano@unife.it

The project is related to the most typical aspects of the Humanities: thus, environmental and cultural contents represent segments of a unitary system. Therefore, the **doctorate is acting, with a high value of knowledge and experimental training, as natural consequence of courses** (LT, LM), held at various levels at the University of Ferrara, that are characterized by a strong interaction of knowledge so as to be composed in an **interdisciplinary and unitary training**. For these reasons, the objectives expect to comply the growing request of training in the fields of research and, especially, of new careers related to the many aspects that define man.

The curricula are concerning:
a) the natural history through anthropological, behavioral and cultural characterization, investigating from the most ancient evidence of social gathering to the development of complex societies;
b) the ancient and modern history, history of arts, archaeology, paleography, also focusing on the aspects of conservation, development, management and fruition of cultural heritage;
c) the classical and modern philology, classical and modern literatures, linguistics;
d) social sciences (anthropology, philosophy, pedagogy, psychology, sociology).
The traditional methods of study will be joined by new procedures for detecting, recording and processing of data, useful for purposes of documentation, analysis and research planning.

IDQP

https://sites.google.com/a/unife.it/idqp/

http://www.unife.it/studenti/dottorato/corsi/riforma/earth

The city of Ferrara

According to the well-known definition of the Swiss historian Jacob Burckardt, Ferrara was the **first modern city in Europe**.
This was due to the "Herculean addition" commissioned by Duke Ercole I Este in 1492, which not only doubled the surface area of the city, but also radically changed its appearance.

Ferrara is full of **fascinating reminders** (fortunately still intact) of the splendour of its **extraordinary past, in its gardens, in the narrow streets** which are only properly seen by those who take their time, preferably by **bicycle**.

http://www.ferraraterraeacqua.it/en

It is a city which has included **masters** such as Guarini and where students such as Copernicus graduated. It is a city of poets like Ariosto and Tasso, of writers like Bembo, of artists like **Cosmé Tura** and **De Roberti**, of architects like **Leon Battista Alberti** and Rossetti.

It was the splendid and enlightened capital of the **Estense Duchy** and also the place which inspired the "**metaphysical painting**" of De Chirico, Savinio, Carrà and the young De Pisis. The **director Antonioni** and the novelist **Bassani** grew up here.

It is **a city of silence**, (although the word may not be wholly appropriate) which is loved for its spellbinding gentleness, and which inspired Bassani to write: *"All of a sudden, looking at them and the enormous urban landscape, which I could see in its entirety from up there, I felt myself pierced by a great gentleness, by a peace and a horizon, brightly illuminating everything: the Jewish cemetery below me, the apse and bell tower of Saint Christopher's church a little further away, and in the background, high above the dark brown expanse of roofs, the distant masses of the Estense Castle and the Cathedral".*

Even today, the city is filled with a magical atmosphere. From the austere **Estense Castle** to the **splendid Cathedral**, wherever one goes in the historical centre, one breathes the strength of the past and of tradition.

Ferrara keeps secrets which are impossible to know about by simply following tourist routes, in fact, they are often overlooked by the residents who pass close to them every day.

Sometimes it is enough to pass ones hands over an old stone to feel the enchantment that runs from the **medieval walls to the banks of the great river**, where Ferrara becomes a city of water. Ferrara is a **city of dreams which live and change day after day** in the eyes of those who have chosen to find the time to admire it.


SEE YOU SOON
IN FERRARA!!