

BIM/hBIM - The Building Information Modeling for Architectonical/Infrastructural Heritage digitalization, management and aided design

Professional outlets: The Master trains professional figures today highly requested specialized in BIM-Building Information Modeling, able to realize, draft and grooming BIM projects, as well as their management, in line with the standards and institutionalized procedures, through the acute use of updated software and technological devices. Specific professional profiles, therefore, aimed at the use of BIM in many areas of intervention: Recovery and Restoration, Road Infrastructures, Digital Fabrication, Urban and Architectural Design. For the aforementioned skills, these figures will be highly requested by professional firms (large, medium and small), companies and organizations, as well as a individual designer able to update the design methodology in line with the most recent advices of European directives.

Director: Andrea Giordano

Level: 2

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class / distance learning

Language: Italian / English

Short Specialization degree's location: Dipartimento di Ingegneria Civile, Edile e Ambientale – ICEA - Aula D e aula Pineca - Via Marzolo, 9 - 35131 Padova; Laboratorio di Modellazione Informatizzata LIM - Via Venezia, 1 - 35129 Padova

Places available: min: 15 / max EU citizens: 40 / max non-EU citizens: 5 (total: 45)

Additional places for students with disabilities: 2

Additional places for students DAC LIST: 5

Registration fee: Euro 3.022,50 (first payment: 2.022,50 euro / second payment: 1.000,00 euro)

Registration fee for students DAC LIST: Euro 622,50

Registration fee for students with disabilities: Euro 22,50

Benefits / Scholarship: n. 2 possible study awards (Euro 1.000,00)

Criteria for selection: evaluation of qualifications

Application submission deadline: October 8th, 2021

Website: www.dicea.unipd.it

For information: 049 8275597; elisa.trovo@unipd.it

GIScience and Unmanned System for the integrated management of the territory and the natural resources - with majors

- 1) Production and management of geo-information**
- 2) GIScience for environmental conflict management and participation on public decision making (distance learning)**
- 3) Cartography and GIS for green infrastructures (distance learning)**
- 4) Geoinformation and new technologies for sustainable agriculture (distance learning)**
- 5) Geotechnologies and geoinformation for territorial planning (distance learning)**
- 6) Design and management of spatial data infrastructures and GIS development for the protection and management of the territory (distance learning)**
- 7) GIScience and Geoinformatics (distance learning)**

Professional outlets:

1) Production and management of geo-information (face to face); The academic path prepares multipurpose professionals expert on evaluation and management of existing spatial information and in the planning of necessary actions to acquire new information by defining the most appropriate technologies (in particular the role of the Unmanned Systems) according to the needs of the organization. These GIScience professionals can find employment opportunities in the public sector, businesses and non-profit organization as: experts on spatial data valorisation; experts on design and management of spatial data infrastructure; experts at national and European level about the policies of territorial information under the INSPIRE Directive; GIS experts and managers; 5 spatial analysts; experts and responsible of territorial databases; experts and manager of georeferenced marketing.

2) GIScience for environmental conflict management and participation on public decision making (distance learning); The academic path GIScience for environmental conflict management and participation in public decision making (distance learning) prepares multipurpose professionals expert on management of inclusive decision-making processes and environmental conflicts in the framework of sustainable territorial citizenship implementing the Aarhus Convention and the European and national related policies. These GIScience professionals can find employment opportunities in the public sector, businesses and non-profit organization as experts on the use of mapping and GIS for visualization of scenarios related to complex territorial choices; experts on management of the crowdsourcing of information and geographical knowledge; GIS and inclusive mapping experts during EIA, SEA, and

Assessment of Implications processes; experts on cartographic visualization in participatory processes and management of environmental conflicts.

3) *Cartography and GIS for green infrastructures (distance learning)*; The academic path on cartography and GIS for green infrastructures (distance learning) prepares multipurpose professionals expert on design of green infrastructures (green and blue) in the framework of the European integrated policies for biodiversity conservation climate change. These GIScience professionals can find employment opportunities in the public sector, businesses and non-profit organization as experts on the use of cartography and GIS for the visualization of development scenarios, facilitating public debate on alternatives during processes of design and management of green/blue infrastructures; GIS experts on design of ecological networks and connections between protected areas; GIS experts on management of city parks and connections with the green infrastructure; GIS experts on design of land and river ecological corridors; GIS experts on road ecology.

4) *Geoinformation and new technologies for sustainable agriculture (distance learning)*; The academic path on geoinformation and new technologies for sustainable agriculture (distance learning), prepares multipurpose professionals expert in the treatment of geographical information and related technology for the improvement of the environmental performance of agriculture and the spread of sustainable agricultural practices. These GIScience professionals can find employment opportunities in public administrations, business, organizations, as experts on the appropriate tools for managing interactions between agriculture and ecosystems and the consolidation of sustainable farming practices with low use of external inputs and fossil fuels. Among the possible employment opportunities: GIS experts; spatial analysts; experts on interaction among agricultural.

5) *Geotechnologies nad geoinformation for territorial planning (distance learning)*; The academic path on Geotechnologies and geoinformation for territorial planning (distance learning) prepare multipurpose professional experts in the use of new geographic information technologies for the management and governance of the territory. These GIScience professionals can find job opportunities in public administration, professional studies, institutions, companies, freelance professionals, as experts in the use of a wide range of tools and techniques for the territorial and environmental survey, cartography and GIS in spatial planning at urban and regional scale, participating in the innovative development of relations between BIM (Building information Modeling), IIM (Infrastructure Information Modeling) and GIS.

6) *Design and management of spatial data infrastructures and GIS development for the protection and management of the territory (distance learning)*; *Design and management of spatial data infrastructures and GIS development for the protection and management of the territory (distance learning)*, Prepare multipurpose professional experts in design and management of Spatial Data Infrastructures,

WebGIS, GIS development. These GIScience professionals can find employment opportunities in the public sector, institutions, companies, organizations, as: experts in the use, design, implementation and management of geoportals for the publication of spatial data in accordance with the RDNT Italian standard and INSPIRE; experts in the compilation of metadata according to the RDNT Italian standard; in the processing of data produced by Public Administration and in the management of Topographical geodatabases through the use of GeoUML Methodology according to the RDNT specifications; in the design and management of WebGIS made with Open Source technology and in the development of new GIS applications.

7) *GIScience and Geoinformatics (distance learning)*; The academic path prepares multipurpose professional expertst in geo-information and geoinformatics. These GIScience professionals have solid knowledge and skills in Python programming, in the management and development of projects related to the territory, from the management of spatial data to the production of WebGIS systems. As GIScience professionals they can find employment opportunities as external experts, managers in public administrations, professional bodies companies, independent consultants, implementing a wide range of instruments and techniques for the development of custom GIS software solutions, webGIS, cartographic production, management, development and analysis of databases, geodatabases and big earth data.

Director: Massimo De Marchi

Level: 2

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class / distance learning

Language: Italian / some workshops will be held in English or Spanish

Short Specialization degree's location: Dipartimento di Ingegneria Civile Edile ed Ambientale – ICEA, Via Marzolo 9, 35131, Padova

Places available: min: 10 / max EU citizens: 37 / max non-EU citizens: 5 (total: 42)

Additional places for students with disabilities: 1

Additional places for students DAC LIST: 1

Registration fee: Euro 3.822,50 (first payment: 2.682,50 euro / second payment: 1.140,00 euro)

Registration fee for students DAC LIST: Euro 782,50

Registration fee for students with disabilities: Euro 22,50

Benefits / Scholarship: n. 2 possible study awards (Euro 1.000,00)

Criteria for selection: evaluation of qualifications

Application submission deadline: October 8th, 2021

Website: <https://www.dicea.unipd.it/master-GIS-science-droni>

For information: 049 8275454; massimo.demarchi@dicea.unipd.it

GMP Compliance Quality Expert for Pharmaceutical Operations

Professional outlets: The expected job opportunities can be: in the Pharmaceutical Manufacturing Industries (both of Active Ingredients and Finished Pharmaceuticals) in Quality Areas (Q.A./Q.C.), Validation, Engineering, Production; in Engineering and Consulting Company for the Pharmaceutical Industry; in Agenzia Italiana del Farmaco (Italian Medicines Agency) (AIFA); in Suppliers Company of Systems / Equipment/Technologies for the Pharmaceutical Industry.

Director: Fabrizio Bezzo

Level: 2

Duration: one-year

Period: November 2021 / September 2022

Teaching method: taught class

Language: Italian / English

Short Specialization degree's location: Dipartimento di Ingegneria Industriale dell'Università di Padova, Via Gradenigo, 6/a - 35131 Padova

Places available: min: 16 / max EU citizens: 30 / max non-EU citizens: 2 (total: 32)

Additional places for students with disabilities: 2

Additional places for students DAC LIST: 2

Registration fee: Euro 5.022,50 (first payment: 3.022,50 euro / second payment: 2.000,00 euro)

Registration fee for students DAC LIST: Euro 1.022,50

Registration fee for students with disabilities: Euro 22,50

Criteria for selection: evaluation of qualifications and oral examination

Application submission deadline: October 8th, 2021

Website: <https://academics.dii.unipd.it/tqf>

For information: 049 8078598; academy@unismart.it

Open Innovation Management: processes, products and business models – MOIM

Profile: This educational path is addressed to professionals and entrepreneurs who hold positions of responsibility in the areas of: Governance, Management, Design, Strategy, Human Resources, Communication and Marketing, ICT, Innovation and Development, Logistics, Sustainability and CSR, within private and public companies, non-profit institutions, or who work as external consultants, as well as young graduates who intend to enter these sectors of employment.

Professional outlets: The MOIM Master enables participants to play various key roles such as: research and development office manager; responsible for digital transformation processes; open innovation manager; head of business strategy innovation; communication & marketing development manager; business development manager.

Director: Fabrizio Dughiero

Level: 1

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class

Language: Italian / English

Short Specialization degree's location: Dipartimento di Ingegneria Industriale dell'Università di Padova, Via Gradenigo, 6/a - 35131 Padova

Places available: min: 15 / max: 40

Additional places for students with disabilities: 2

Registration fee: Euro 6.022,50 (first payment: 3.622,50 euro / second payment: 2.400,00 euro)

Registration fee for students with disabilities: Euro 22,50

Criteria for selection: evaluation of qualifications, possible oral examination, possible written examination

Application submission deadline: October 8th, 2021

Website: <https://www.unismart.it/academy-master/>

For information: 049 8078598; academy@unismart.it

Planning, design, construction and management of airport infrastructures

Professional outlets: **OUTLINE.** The Master is addressed to MSc graduates, unemployed or employed or professionals, with basic skills on the topic. It trains highly specialized professionals able to hold positions of responsibility in public and private administrations, companies and engineering studies involved in planning, design, construction and management of airports. At the end of the Master course, participants are also able to carry out scientific research on the different topics analysed, with an estimated improvement of expertise of 50% in professional and technical skills. **MARKET.** The professional figures trained in the Master course are: highly qualified specialists for airport managing bodies; consultants for Agencies involved in airport and air traffic control; engineers specialised in construction of infrastructures, pavements and plants; airport planning and design experts, to be hired in managerial position at engineering societies.

Director: Marco Pasetto

Level: 2

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class /distance learning

Language: Italian / some workshops may be held in English

Short Specialization degree's location: Dipartimento di Ingegneria Civile, Edile e Ambientale – ICEA, Via Marzolo, 9 - 35131 Padova

Places available: min: 5 / max EU citizens: 17 / max non-EU citizens: 3 (total: 20)

Additional places for students with disabilities: 2

Additional places for students DAC LIST: 9

Registration fee: Euro 3.772,50 (first payment: 2.272,50 euro / second payment: 1.500,00 euro)

Registration fee for students with disabilities: Euro 22,50

Registration fee for students DAC LIST: Euro 772,50

Benefits / Scholarship: n. 3 possible study awards (Euro 1.500,00)

Criteria for selection: evaluation of qualifications

Application submission deadline: October 8th, 2020

Website: <http://www.dicea.unipd.it/master-infrastrutture-aeroportuali>

For information: 049 8275569; marco.pasetto@unipd.it

Project and Innovation Management

Professional outlets: Participants in the Master's program will be able to find jobs as Project Manager in areas like Research and Development, Information Systems, Operations Management. They will also have job opportunities in healthcare and education sectors.

Director: Moreno Muffatto

Level: 1

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class / distance learning

Language: Italian

Short Specialization degree's location: Dipartimento di Ingegneria Industriale – DII, Via Venezia, 1 - 35131 Padova

Places available: min: 15 / max EU citizens: 55 / max non-EU citizens: 5 (total: 60)

Additional places for students with disabilities: 3

Additional places for students DAC LIST: 3

Registration fee: Euro 5.002,50 (first payment: 3.012,50 euro / second payment: 1.990,00 euro)

Registration fee for students with disabilities: Euro 22,50

Registration fee for students DAC LIST: Euro 1.018,50

Criteria for selection: evaluation of qualifications

Application submission deadline: October 8th, 2021

Website: www.masterinnovazione.org

For information: 049 8276784; master@dii.unipd.it

Strategic Environmental Management - SEM

Professional outlets: The Master intends to train experts in environmental management, which could be employed in the industry sector, as a manager inside of a company or as a consultant and in the services sector. The course provides knowledge needed: to develop and implement environmental management systems (EMS); to identify and interpret the environmental national law requirements; to carry out audits for the EMS and energy management systems; to act in a circular economy perspective; to act for an efficient and rational energy use and to achieve the title of energy management expert; to use instruments for the environmental communication and for the corporate social responsibility; to develop and implement systems monitoring and controlling the greenhouse gases' emissions; basic knowledge of life cycle management and footprinting; develop approaches for the evaluation and payback of ecosystem services.

Director: Roberta Bertani

Level: 1

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class / distance learning

Language: Italian / English

Short Specialization degree's location: Aule del Dipartimento di Ingegneria Industriale – DII, Via Marzolo, 9 - 35121 Padova

Places available: min: 12 / max: 35

Registration fee: Euro 3.900,00 (first payment: 2.430,00 euro / second payment: 1.470,00 euro)

Criteria for selection: evaluation of qualifications

Application submission deadline: October 8th, 2021

Website: <https://cesqa.eu/>

For information: 049 8275539; master.gas@unipd.it

Surface Treatments for Industrial Applications

Professional outlets: The Master makes the students acquire the most common industrial processes, in the field of surface treatments. Students complete their training being able to design, plan, set up and test thin film deposition systems, and chemical and electrochemical surface finishing machines. The main aim of the Master is the training of super specialists in the designing, manufacturing, automatization of Physical Vapour Deposition and eletrochemical treatments systems. Students, once obtained the diploma, find employment as R&D Responsibles or process engineers in private industries, as well as Researchers or Technologists in the private/Public Research.

Director: Giorgio Keppel

Level: 1

Duration: one-year

Period: November 2021/ September 2022

Teaching method: taught class

Language: Italian / English

Short Specialization degree's location: Istituto Nazionale di Fisica Nucleare - Laboratori di Legnaro - Servizio Scienza e Tecnologia dei Materiali per la Fisica Nucleare, Viale dell'Università, 2 - 35020 Legnaro (PD)

Places available: min: 5 / max: 10

Registration fee: Euro 4.022,50

Criteria for selection: evalutation of qualifications and oral examination

Application submission deadline: October 8th, 2021

Website: www.surfacetreatments.it

For information: 049 8068665; silvia.martin@Inl.infn.it