



Piano formativo

del Corso* Intensivo Summer School in:

GIS-BIM for a Digital Integrated Design

Anno Accademico	2021-22
Dipartimento	Pianificazione, design, tecnologia dell'architettura
Data Delibera approvazione di attivazione del corso in Dipartimento	01/03/2022
Direttore del Corso	Prof. Fabrizio Cumo
Numero minimo di ammessi	10
Numero massimo di ammessi	50
Requisiti di ammissione	Laurea triennale- Bachelors Degree o equivalente
Obiettivi formativi	<p>The third edition of the International Summer School GIS-BIM 2022 offers a quality training on two topics of great relevance: the Digital Twin integrated with innovative solutions in the management of the design process of Green Infrastructure.</p> <p>The complexity of the processes in the construction industry requires an approach aimed at codifying the interactions present in all levels, through integrated solutions that simplify the entire design workflow.</p>

* Art. 1 punto 4 del Regolamento in Materia di Corsi di Master, Corsi di Alta Formazione, Corsi di Formazione, Corsi Intensivi D.R. 915/2018

- per Corso di Alta Formazione (CAF) il corso post - lauream professionalizzante di perfezionamento o approfondimento specialistico istituito in base alla L. 341/1990 art. 6. Vi si accede con la laurea, ha durata inferiore all'anno, consente l'acquisizione di massimo 20 Cfu e alla sua conclusione è rilasciato un attestato di frequenza;
- per Corso di Formazione (CF), il corso di aggiornamento professionale di durata inferiore all'anno che conferisce fino a un massimo di 10 Cfu. Vi si accede anche con il solo diploma di scuola media superiore e alla sua conclusione è rilasciato un attestato di frequenza;
- per Corsi Intensivi Summer/Winter School) i corsi, di norma residenziali, destinati a soggetti in possesso dei requisiti di cui all'art. 29 del presente regolamento, della durata da una a quattro settimane, connotati internazionalmente che conferiscono fino a un massimo di 10 Cfu e si concludono con il rilascio di un attestato di frequenza

	<p>The ISS, starting from the methodological and regulatory framework through the presentation of case studies in various fields (Architecture, Linear Infrastructure, Cultural Heritage) in Europe, Central America and Asia, proposes an innovative training framework.</p> <p>Lessons will be held in mixed mode: in presence and online.</p>
Risultati di apprendimento attesi	<p>Ability to operate within an integrated BIM & GIS process, critical ability in the approach to the multidisciplinary process, good ability to manage BIM models and the interaction with GIS, acquisition of modeling skills focusing on the construction process management, principles and applications of integrated management and project development with an age-friendly and HBIM approach.</p>
Data di inizio delle lezioni	15/07/2022
Calendario didattico	Allegare o linkare
Stage	Non previsti
Modalità di erogazione della didattica	mista
CFU assegnati	6
Docenti Sapienza responsabili degli insegnamenti e relativi curricula brevi (max mezza pagina)	<p>Prof. Fabrizio Cumo</p> <p>Nuclear Engineer (degree 110/110 con lode in 1992)</p> <p>Since 1999 confirmed researcher in Applied Physics Architettura Valle Giulia – University of Rome "La Sapienza"</p> <p>Since 2007 professor in Applied Applied Physics Architettura Valle Giulia – University of Rome "La Sapienza"</p> <p>Director of the research center CITERA – Sapienza University</p> <p>President of the degree course in Project Management - Sapienza University</p> <p>Director of the Master BIM (Building Integrated Modelling)- Sapienza University</p> <p>2010-2014 Director of the Project management Master</p> <p>Since 2002 operates in the Institute of the Valorisation and Restoration of Cultural Heritage of Italian CNR (ICVBC) –section of Rome “Marcello Paribeni”</p> <p>Leader of the research group for the evaluation of</p>

safety, security and environmental comfort for operators and work of art (CNR ICVBC) in 22 museums of Lazio region(2004), in 7 public library in Rome (2003) and in 13 churches of the

IXth Mountain Community of the Lazio region (2002)

2006 member of the Italian IPPC Commission for the Italian Ministry of Environment

2004 : member of the Italian Commission for the receiving of EU Directive 2002/91/CE for the Ministry of Environment for the responsible use of energy in residential area and the use of renewable sources.

2010-2013 Italian Scientific responsible for the research center CITERA of the project Source - Sustainable Urban Cells - European bilateral research program Italy-kingdom of Sweden on behalf of the General Directorate of the Ministry of Education Research Internationalization

2013-2015 Communication Manager of the ENPI-MED Project "GreatMED"

2015-2017 Italian Scientific responsible for the research center CITERA of the project PRACTICE on the relevance of built environment on ageing society - European bilateral research program Italy-kingdom of Sweden on behalf of the General Directorate of the Ministry of Education Research Internationalization

Is author of more than 180 papers regarding the fields of energetic, environmental applied physics (IAQ, heat transfer and lightning) and sustainable buildings;

Prof. Marco Casini is a leading academic in the Green and Smart Building sector with over 20 years experience in Building Sciences. He is an environmental engineer, PhD in Environmental Engineering and Research Fellow in Architecture Technology. Since 2002 he has been Professor of Architecture Technology and of Environmental Certification of Buildings at the Faculty of Architecture of Sapienza University where he also teaches in several Master's, PhD and Graduate schools on subjects pertaining to Energy and Environmental Sustainability for Buildings.

Prof. Tommaso Emplér

Since 1998 lecturer in Automatic Drawing at Sapienza University of Rome, Faculty of Architecture; Researcher since 2010 at the same Faculty; since 2012 Head of the training course in Computer Graphics 2D and 3D with free software; head of the training course in Interaction and Multimedial Experience; teacher of the BIM Master and member of the Scientific Teaching Council.

Eventuali partner convenzionati	Fare clic qui per immettere testo.
Sede di svolgimento Sapienza o sedi esterne (obbligo di Convenzione)	Facoltà Architettura
Quota di iscrizione prevista ripartita massimo in due rate	500€
Eventuali quote di esenzioni parziali o totali dal pagamento della parte di quota di pertinenza del Dipartimento espresse in percentuali (numero intero) rispetto alla quota di iscrizione (max due tipi di esenzioni)	Borse di studio da eventuale cofinanziamento concesso da bando Sapienza
Contatti di Segreteria	intsummschoolgis-bim.dpda@uniroma1.it

Piano delle Attività Formative

Name of training activity	Responsible for teaching	Disciplinary Scientific Area	ECTS/CFU	Hours	Type	Language
GIS and BIM: Digital Transformation of the Construction Industry						
The Digital Transformation of the Construction Industry.	Prof. Francesco Ruperto	ICAR/17		2	Blended Learning	English
Digital methods and tools in the construction process for an efficient project management workflow: case histories of digital Twins for Residential design solutions.	Announcement	ICAR/11		2	Blended Learning	English
Construction 4.0: Advanced Technology, Tools and Materials for the Digital Transformation of the Construction Industry	Prof. Marco Casini	ICAR/12		2	Blended Learning	English
			1	6		
GIS-BIM Theory and practice						
Digital methods and tools in the construction process for an efficient project management workflow: case histories.	Announcement			2	Blended Learning	English
Geographic Information Systems and its integration with BIM methodologies.	Announcement			4	Blended Learning	English

				1	6		
Historic building information modelling (HBIM)							
Settings, interfaces, coordination systems, country kits of Map 3D, Civil3D and Infracore	Announcement				3	Blended Learning	English
Historic building information modelling (HBIM)	Prof. Tommaso Emplè	ICAR/17			2	Blended Learning	English
Live activities: Workshop and Q&A					1	Blended Learning	English
				1	6		
GIS and BIM international case histories and applications							
GIS and BIM International Case Histories	University of Nottingham Ningbo China				4	Blended Learning	English
GIS and BIM International Case Histories	Chinese University				4	Blended Learning	English
GIS and BIM International Case Histories	University of Bandung Indonesia				4	Blended Learning	English
BIM and Bioclimatic architecture Costa Rica	Universidad de Costa Rica (UCR)				4	Blended Learning	English
Digital Twin experience UTP Panamá	Universidad Tecnológica de Panamá (UTP)				4	Blended Learning	English

Live activities: Workshop/Q&A				1	Blended Learning	English
Final test				1	Blended Learning	English
			3	22		
ECT and total lessons hours			6	40		

Prova finale	Test	SSD non previsto			Verifica dell'apprendimento individuale/Individual learning check
Altre attività		SSD non previsto			
TOTALE CFU			6		

Il numero minimo di Cfu assegnabili ad una attività è 1 (ai sensi dell' art. 23 del Regolamento didattico d'Ateneo si precisa che 1 CFU corrisponde 6 – 10 ore di lezione frontale, oppure 9 - 12 ore di laboratorio o esercitazione guidata, oppure 20 - 25 ore di formazione professionalizzante a piccoli gruppi o di studio assistito).