Format revised 2023
Syllabus created in 2024

SAS – SCHOOL OF ARTS AND SCIENCES

SCHOOL OF GLOBAL STUDIES; HORTICULTURE
DEPARTMENT OF URBAN STUDIES; GENERAL HORTICULTURE
COURSE TITLE: GARDENS OF CULTURE: CLIMATE, CITIES, AND WELLNESS
COURSE CODE: GSUSGC300; HCGHGC300
3 semester credits

1. DESCRIPTION

This course explores how green spaces can be seen as arenas where climate, cultural heritage, and personal well-being converge. Students will delve into the sustainable principles for creating healthy green spaces in cities. They will discover the significance of gardens in fostering beneficial psychophysical practices, and the advantageous implications of green infrastructures for the community. The course explore the science that underpins the restorative power of nature, exploring how gardens can alleviate stress, promote physical activity, and enhance overall well-being. Through lectures, interactive workshops, and visits to local urban gardens, students will gain a deeper understanding of gardens as places of culture, intended as a polyhedral term that embraces both mind and body, on both individual and community levels. This course includes an Experiential Learning Project with CEMI.

2. OBJECTIVES

Upon successful completion of this course, students will:

- Analyze sustainable design principles for creating healthy green spaces in urban environments.
- Explore the significance of gardens in fostering practices that benefit both the mind and body.
- Evaluate the positive implications of green infrastructure for communities.
- Identify the scientific basis for nature's restorative power, focusing on how gardens reduce stress and promote physical and mental well-being.
- Develop practical skills through workshops to design and maintain healthy green spaces.
- Gain knowledge about urban gardens through visits and discussions, fostering a deeper understanding of their cultural significance.

3. REQUIREMENTS

There are no prerequisites for this course.

4. METHOD

This course consists of lectures, class discussions, projects, and site visits within the local community. Mediums for instruction used will include, but are not limited to, interactive and hands-on activities which challenge thought processes, academic texts and studies, videos, slides, guided problem solving, and experiential and/or field learning activities where applicable.

5. TEXTBOOK – FURTHER READINGS – RESOURCES

- Nakamura, F. 2022. *Green Infrastructure and Climate Change Adaptation*. Springer.

Available as an Open textbook online.

The textbook is mandatory for successful completion of the course.
Where applicable, additional materials, handouts and/or notes will be provided by the instructor.

FURTHER READINGS

- Caporali E., Rinaldi M., Casagli N. 2005. "The Arno River Floods," *Giornale di Geologia Applicata 1.* 177-192.
- Charles, C. & Louv, R. 2009. "Children's Nature Deficit: What we know – and don't know," *Children and Nature Network*, September, 1-32.
- Interreg Central Europe. 2020. *Manual For Creating Evidence-Based Green Infrastructurestrategies And Action Plans: A Tool Supporting Local Planning.*
- Naeem, S. & Chazdon, R. & Duffy, J. & Prager, C. & Worm, B. 2016. "Biodiversity and Human Well-Being: An Essential Link for Sustainable Development," *Proceedings of the Royal Society B: Biological Sciences*. 283.
- United Nations. 2019. *Climate Change and Water. UN-Water Policy Brief*.
- UK GBC. 2020. *Practical how-to guide: Developing and implementing a green infrastructure strategy.*
- Zafeiroudi, A. & Pipinia, M. & Yfantidou, G. & Georgomanos, S. 2021. "The Effects of Yoga Practice on Practitioners' Environmental Behaviours & Sustainability," *Environmental Management and Sustainable Development*. 10.

LIBRARIES IN FLORENCE

Please consult the posted schedules for official opening times of the university library. Also note that the library is for consultation only and it is not possible to borrow materials. The library is equipped with a scanner and internet access so that you may save or email a digital copy of the pages needed.
Students may also utilize additional libraries and research centers within the local community:

BIBLIOTECA PALAGIO DI PARTE GUELFA

Located in Piazzetta di Parte Guelfa between Piazza della Repubblica and Ponte Vecchio. Please consult the library website for hours of operation:
http://www.biblioteche.comune.fi.it/biblioteca_palagio_di_parte_guelfa/

BIBLIOTECA DELLE OBLATE

Located in via dell'Oriuolo 26. Please consult the library website for hours of operation:
www.bibliotecadelleoblate.it

THE HAROLD ACTON LIBRARY AT THE BRITISH INSTITUTE OF FLORENCE

Located in Lungarno Guicciardini 9. Please consult the library website for hours of operation. This library requires a fee-based student membership. For information: www.britishinstitute.it/en

6. FIELD LEARNING

Please consult your Official Registration for any mandatory field learning dates. Field Learning Activities cited in Official Registrations are an integral part of the course and also include an assignment that counts towards your final grade, details will be provided on the first day of class.

7. COURSE MATERIALS

No additional course materials are necessary.

8. COURSE FEES

Course fees cover course-related field learning activities, visits, and support the instructor's teaching methodologies. Book costs are not included in the course fee. The exact amount will be communicated by the instructor on the first day of class.

9. EVALUATION – GRADING SYSTEM

10% Attendance
20% Participation and Assignments
20% Midterm Exam
20% Final Project
30% Final Exam

A = 93-100 %, A- = 90-92%, B+= 87-89%, B = 83-86%, B-=80-82%, C+ = 77-79%, C=73-76%, C-=70-72%, D = 60-69%, F= 0-59%, W = Official Withdrawal, W/F = Failure to withdraw by the designated date.

10. ATTENDANCE – PARTICIPATION

Academic integrity and mutual respect between instructor and student are central to the academic policy and reflected in the attendance regulations. Student presence is mandatory and counts toward the final grade.

Absences are based on academic hours: 1 absence equals 3 lecture hours.
Two absences: 6 lecture hours, attendance and participation grade will be impacted.
Three absences: 9 lecture hours, the final grade may be lowered by one letter grade.
Four absences: 12 lecture hours, constitutes automatic failure of the course regardless of when absences are incurred.
Please note:
- The above hours refer to lecture hours. Please note that the contact / credit hour policy in the academic catalog includes additional distribution ratios according to delivery category. Ex: 1 absence equals 6 FL/SL/Lab hours or 9 EL hours.
- Hours may be distributed in different formats according to the academic course schedules.

LATE ARRIVAL AND EARLY DEPARTURE

Arriving late or departing early from class is not acceptable. Two late arrivals or early departures or a combination will result in an unexcused absence. Travel is not an exceptional circumstance.

TRAVEL (OR DELAYS DUE TO TRAVEL) IS NEVER AN EXCUSE FOR ABSENCE FROM CLASS.

It is the student's responsibility to know how many absences are incurred. If in doubt, speak with your instructor!

Participation: Satisfactory participation will be the result of contributing to class discussions by putting forth insightful and constructive questions, comments and observations. Overall effort, cooperation during group work, proper care of work space and tools, responsible behavior, and completion of assignments will be assessed. All of the above criteria also apply to Field Learning and site visits.

11. EXAMS – PAPERS – PROJECTS

The **Midterm Exam** accounts for 20% of the final course grade. **The time and date of the exam cannot be changed for any reason.**

Format: the exam is divided into two sections:

- Part I: Multiple choice and short answer questions, for a total of 60 points.
- Part II: Essay questions; for a total of 40 points.

The **Final Project** accounts for 20% of the course grade. This is a group project, presented during the

last day of class. The written component is worth 15%, while the presentation is worth 5%. Students will write a 3000-word research paper on Florence's current infrastructure, and pinpoint an area for improvement. Then, they will delve into specific green solutions, and consider factors like flood-prone areas, high pedestrian traffic, and feasibility. They will develop a detailed proposal, explaining the chosen solutions, their benefits, challenges, and risks.

The **Final Exam** accounts for 30% of the final course grade. **The time and date of the exam cannot be changed for any reason.** Format: the exam is divided into two sections:

- Part I: Multiple choice and short answer questions, for a total of 60 points.
- Part II: Essay questions; for a total of 40 points.

12. LESSONS

Lesson 1	
Meet	In class
Lecture	Nature and Culture: Development and Complex Equilibrium.
Objectives	Analyze the historical development of Florence in relation to its urban structure, layered history, presence of Arno River, and surrounding hills. Identify key green spaces within the city and their influence on urban planning. Discuss the concept of gardens and their relevance to Florence. Explain the importance of studying the relationship between nature and culture.
Readings/ Assignments	Read: Nakamura, *Preface*.

Lesson 2	
Meet	In class
Lecture	Designing for Life: Sustainable Practices in Urban Green Spaces.
Objectives	Explain the principles of sustainable design for creating healthy and resilient urban gardens. Discuss the importance of using hybrid infrastructure, as well as local and recycled materials in garden construction. Evaluate different strategies for promoting biodiversity within urban green spaces.
Visit	Gardening session in Cafaggio del Vescovo garden of Palazzo Villani Stiozzi Ridolfi.
Readings/ Assignments	Read: Nakamura, *Concept and Application of Green and Hybrid Infrastructure*. Assignment: Mapping the green, i.e. Mark and label all green spaces, including parks, public gardens, private courtyards (visible from the street), and even street trees. Note the type of green space and any unique features.

Lesson 3	
Meet	In class
Lecture	Sociability in Green Cities.
Objectives	Be able to define Green Infrastructure (GI) and identify how the latter is classified it as the infrastructure involving the natural ecosystem, seminatural ecosystem, and artificial ecosystem. Identify how social activity is enhanced by the presence of GI
Visit	Social interaction analysis in Cafaggio del Vescovo garden of Palazzo Villani Stiozzi Ridolfi.
Readings/	Read: Nakamura, *Toward Social Infrastructure: Typological Idea for Evaluating*

Assignments	*Implementation Potential of Green Infrastructure.*

Lesson 4	
Meet	In class
Lecture	The Correlation Between Biodiversity and Well-Being.
Objectives	Identify how the concept of biodiversity is important for human health. Analyze how diverse plant life contributes to air and water quality. Explain the role of gardens in supporting pollinators and other beneficial organisms. Discuss the links between biodiversity, ecosystem services, and human well-being.
Readings/ Assignments	Read: Naeem, et al, *Biodiversity and Human Well-Being: An Essential Link for Sustainable Development.* Assignment: Experience the benefits of community gardens and explore their role in promoting local food systems.

Lesson 5	
Meet	In class
Lecture	Rising Temperatures and the Importance of Water.
Objectives	Identify how climate change influences the water cycle. Be able to illustrate the water cycle using a model. Discuss the importance of water for all living things. Identify ways to conserve water at home and school.
Visit	Cafaggio del Vescovo garden of Palazzo Villani Stiozzi Ridolfi
Readings/ Assignments	Read: United Nations, *Climate Change and Water. UN-Water Policy Brief*.

Lesson 6	
Meet	In class
Lecture	Managing Floods in Florence and Tuscany.
Objectives	Describe the causes and dangers of floods. Research different flood control methods (levees, dams, flood forecasting). Identify how to incorporate green infrastructure to prevent floods and enhance the wellbeing of citizens.
Visit	Piazza Santa Croce and Arno River – plates from 1966 flood.
Readings/ Assignments	Read: Nakamura, *Floodplain Management and Green Infrastructure*. Read: Caporali et al, *The Arno River Floods*. Assignment: Create a list of different types of green infrastructure you encounter, such as rain gardens, permeable pavements, or street trees. Take pictures and document the location and function of each element.

Lesson 7	
Meet	In class
Lecture	MIDTERM EXAM

Lesson 8	
NA	ACADEMIC BREAK

Lesson 9	
Meet	In class
Lecture	Mind & Body in the Garden: Activities for Wellness.

Objectives	Gain knowledge about mindfulness practices in nature. Understand how nature contributes to Familiarize with the properties of meditation in the garden, and other activities for connecting with the green environment.
Visit	Conduct a guided meditation session or a meditation class in Giardino dell'Orticulura.
Readings/ Assignments	Read: Zafeiroudi, et al, *The Effects of Yoga Practice on Practitioners' Environmental Behaviours & Sustainability.*

Lesson 10	
Meet	In class
Lecture	Nature Deficit Disorder: Re-Connecting with the Natural World.
Objectives	Explore the concept of "nature deficit disorder." Identify the importance of fostering connections with the environment for a healthy life, with a focus on childhood and youth. Be able to develop a personal plan to increase their own time spent in nature and encourage others to do the same.
Readings/ Assignments	Charles & Louv, R, *Children's Nature Deficit: What we know – and don't know*. Assignment: Submit a report where you carefully and critically assess data about quality of your own psychophysical wellbeing after spending time in nature doing physical activity. Create a scheme analyzing a number of days and assess data.

Lesson 11	
Meet	In class
Lecture	Re-Shaping Florence: Towards Green Infrastructure.
Objectives	Evaluate the current state of Florence's infrastructure and identify areas where incorporating green solutions can improve sustainability and environmental benefits. Explore and understand different types of green infrastructure solutions applicable to urban environments, such as green roofs, bioswales, permeable pavements, and urban forests.
Visit	Piazza San Marco. Via Cavour.
Readings/ Assignments	Read: Nakamura, *Toward Holistic Urban Green Infrastructure Implementation*.

Lesson 12	
Meet	In class
Lecture	From Theory to Practice: GI in Florence, part 1.
Objectives	Be able to develop a hypothetical plan for implementing specific green infrastructure projects in strategic locations within Florence. Be able to bridge theory and practice, assessing benefits and potential risks of a GI operation.
Readings/ Assignments	Read: *Practical how-to guide: Developing and implementing a green infrastructure strategy.*

Lesson 13	
Meet	In class
Lecture	From Theory to Practice: GI in Florence, part 2.
Objectives	Be able to structure a complex document of design proposal to enhance the role of

	Green Infrastructure in a specific area of Florence. Further identify the stakeholders involved in the process, from the micro- to the macro- levels. Identify how GI affects a project, city, or area in terms of sociological, economic, and political intersections.
Visit	Cafaggio del Vescovo garden of Palazzo Villani Stiozzi Ridolfi
Readings/ Assignments	Read: Interreg Central Europe, *Manual For Creating Evidence-Based Green Infrastructurestrategies And Action Plans: A Tool Supporting Local Planning.*

Lesson 14	
Meet	In class
Lecture	Improving Florence with Green Infrastructure.
Objectives	Be able to critically evaluate Florence's existing infrastructure to identify areas where green solutions can address environmental challenges. Be able to develop and present a comprehensive green infrastructure plan that incorporates specific solutions explaind during the course.
Readings/ Assignments	Submit Final Project. Submit Final Presentation Slides.

Lesson 15	
Meet	In class
Lecture	FINAL EXAM