VĒRITAS

STUDY ABROAD

Center for International Programs and Sustainability Studies
Course name: Permaculture for a Regenerative Culture
Course code: ENV 2800
Total contact hours: 60
Pre-requisites: It is recommended, but not mandatory, that students complete basic biology or ecology, and/or design courses prior to entering this course. Students need to bring their own design basic tools, such as a set of rulers, glue, scissors, coloring pencils and markers.

*This syllabus is tentative and subject to change. A new copy will be provided if changes are made. *

COURSE DESCRIPTION

The course analyzes the **ethical, ecological and design principles proposed by Permaculture** as well as its basic **techniques**. The analysis is addressed as the "permanent culture" (and beyond) and as the **sustainable and resilient, intelligent, and regenerative design process,** emphasizing its applications to urban and field systems, including **intangible** energies in order to develop competences, values and skills to improve our world environmental and socioeconomic conditions.

The **environmental and social aspects**, the importance of **integrality and interdisciplinarity**, the need for systems designed in terms of **efficiency** and **resilience** and the implications of the **values and principles** promoted by permaculture on a personal and community level are studied and practiced. The course aims to provide students with basic skills to design or re-design systems in order to achieve regenerativity.

Capabilities of **analysis, design and problem solving** are gathered. A final design project is prepared, which aims to apply permaculture content to reality. The Veritas Garden is used as a **living laboratory**, which allows to deepen the basic abilities of observation, analysis and organization of ideas for successful design. **Field trips** provide the opportunity for observation and direct interaction with different designs that exemplify the implementation and success of Permaculture.

CLOTHING AND FOOTWEAR REQUIREMENTS

It is necessary for foreign students to bring clothes for warm and for cold climates (not extreme), as well as closed shoes (hiking shoes and rubber boots if possible) since many field trips are made to highlands, rainy zones, and sometimes to areas with the possible presence of snakes, insects, and other animals. We've never had an accident under those circumstances, but we want our students to be as comfortable and safe as possible. The appropriate clothing and footwear also facilitate the field work of this course.

AUDIENCE

This course is structured for international students attending the Study Abroad program at Universidad Veritas. However, courses are not exclusive to foreigners so a few native students could enroll in this course. Some of the courses are also taught in Spanish as part of our Bachelors in Sustainability Management.

This is a theoretical-practical course, and it seeks to clarify the following question:

How to integrate Permaculture ethics, design principles and practices to improve and/or propose new designs that respond to environmental, and socio-economic problems, in accordance with the pillars of sustainability and regenerativity?

To answer this question, the **following generative** topics will be studied:

- Scope and problems to solve.
- Why permaculture?
- Ecology in Permaculture.
- Ethics and design principles, strategies, and techniques.
- Regenerativity in design.
- Social dimension of Permaculture.

Throughout the course the following **skills** will be promoted:

- Ability to analyze complex natural, agroecological and urban systems from the perspective of regenerative design.
- Ability to evaluate and value.
- Ability to promote ethical and design principles on a personal and community level.
- Ability to use interdisciplinary research, analysis and diagnostic techniques and methods.
- Ability to apply Permaculture techniques to regenerative design.
- Ability to analyze ethical and regenerative urban and rural planning.
- Ability to critically analyze proposals for integral, ethical and regenerative design.
- Ability to propose projects for environment, society, and economic regeneration.
- Ability to accept feedback and apply continuous learning.

Among the **values and attitudes** that will be promoted among students are the following:

- Earth care.
- People care.
- Surplus return.
- Teamwork and leadership.
- Systemic thinking.
- Logical and communicative intelligence.
- Interest in solving problems.

- Interest in learning to learn

COMPETENCE, CRITERIA AND EVIDENCE

The competences for the Veritas University are reflexive and integral actions that respond to the professional profile and the problems of the context, with suitability and ethical commitment, integrating the know-how to do, know-how to know, and know-how to be and live with in a perspective of improvement.

Below are both disciplinary and general skills, linked to their criteria and evidence of performance for this course.

Competences	**Key Competences**	**Evidence of learning**
Disciplinary Integrates the principles and practices of Permaculture to identify improvement opportunities for systems and propose designs that respond to environmental, and socio economic needs, in accordance with the pillars of Sustainability and Regenerativity.	Analyzes systems considering their current state and affecting variables, as well as the integration of Permaculture principles for regenerative designs.	Design Project Portfolio Current event Logbook Field trip report/presentation
	Integrates knowledge, attitudes, and abilities from different disciplines in sustainable and regenerative planning and design, considering the use of Permaculture principles and practices.	Design Project Portfolio Current event Logbook Field trip report/presentation
	Applies Permaculture principles and practices in the evaluation and proposal of tangible and intangible	Design Project Portfolio Current event

	system designs, considering ecological, socioeconomic, and technological needs and capabilities of the site to intervene.	Logbook Field trip report/presentation
General		
Learn to learn Integrates the knowledge, skills and attitudes necessary to learn continuously throughout life considering the effective development in the knowledge society.	Learn to learn	Design Project Portfolio Current event Logbook Field trip report/presentation
Critical thinking Analyzes experiences and information to reach their own conclusions about reality.	Question routines, realities and information avoiding passive positions. Produces alternative conclusions by deep analysis of various situations and past, present and possible future scenarios. Uses emotional resources related to "wanting to think" when producing alternative conclusions.	Design Project Portfolio Current event Logbook Field trip report/presentation
Assertive communication	Recognizes limits and individual rights in interpersonal relations.	Design Project Portfolio

Expresses ideas, feelings and needs in a clear, precise, timely considering limits and traits in interpersonal and group relations, according with inalienable human rights to show cognitive and emotional expression as well as self-advocacy, establishing limits in social relations	Chooses content of the message according to the audience. Communicates in a precise adequate way the information, taking into consideration the context in which is shared.	Current event Logbook Field trip report/presentation
Empathy Demonstrates tolerance in social interactions, overcoming possible differences and responding in solidarity, according to the circumstances.	Analyzes the messages of the environment and people placing the message and its context before personal judgment. Understands reactions, emotions and opinions of others considering realities from different perspectives than their own. Overcomes differences in its responses, actions and reactions by considering the context and	Design Project Portfolio Current event Logbook Field trip report/presentation

	perspectives of all the people involved, including its own.	

COURSE CONTENT

Unit 0. Why?

0.1 Dissecting problems.

0.2 The need for newer approaches.

0.3 Permaculture background.

0.4 The importance of Ecology: Natural succession processes and implications.

Unit 1. Permaculture Ethics and Design Principles

1.1 Ethics.

1.2 Guiding principles.

1.3 Natural systems and Design principles.

1.4 Patterns.

1.4.1 Patterns in design.

1.4.2 Patterns in practice.

Unit 2. Strategies, methodologies and techniques to design

2.1 Base map.

2.2 Analysis of elements.

2.3 Site analysis and sectors.

2.4 Zones.

2.5 Observation and data collection.

2.6 Client survey.

2.7 Implementation plan and techniques.

Unit 3. Water

3.1 Water cycles.

3.2 Water management.

3.3 Water in landscape.

3.4 Aquaculture.

Unit 4. Soil and nutrient cycling

4.1 Soil formation and classification.

4.2 Soil analysis and interpretation.

4.3 Creating soil.

Unit 5. Forests and Trees

5.1 Natural forces (wind, light, rain).

5.2 Biomes, ecosystems and types of forests.

5.3 Establishment of a forest.

Unit 6. Establishment of Vegetation and Trees

6.1 Analog forestry.

6.2 Orchard systems.

6.3 Tree planting tips.

6.4 Laying down the garden.

6.5 Garden strategies.

Unit 7. Wildlife and domestic animals' management

7.1 Wildlife importance.

7.2 Integration importance.

7.3 Domestic animals' management.

7.4 Wildlife and biological pest control.

7.5 Regenerativity in the design.

Unit 8. Structures, settlements and social aspects

8.1 Structures and settlements.

8.2 Economy (Money and goods).

8.3 Sense of place and belonging.

8.4 Community life and settlement design.

Unit 9. Urbanity and community

9.1 The design in the city.

9.2 Design and techniques for urban gardens.

9.3 Strategies for horticulture in community.

9.4 Water in the city.

9.5 Energy solutions for the city.

9.6 Community empowerment.

9.7 Tools for regenerative cities.

Unit 10. Project presentations and Further steps

METHODOLOGY

The methodology is planned as experiential learning using Paolo Freire's educational guidelines, from a constructivist perspective and, the competency-based model.

Classes are of an interactive nature, stimulating the collective construction of knowledge; so, the students can recognize, by their own means, the context in which they are and how they can use it to understand the topics of the course for use in their future careers.

Along the course the expository method is used both by the professor and by students, individually and in groups, always promoting the participation of the students through their direct intervention in discussions, extension of concepts and analysis of the topics included. Since research is a pillar of the subject, the topics to be discussed and presented

in class and in assignments, are firstly investigated at a bibliographic level by the students, as a prerequisite to present group and individual work products.

Research on the ethical, ecological and design principles of Permaculture is encouraged, both individually and in groups. Continuous visits to Veritas Garden are a must, since this represents the university's living laboratory from where important information is obtained, the capacity for observation, information organization, and the practice of knowledge addressed in the classroom is exercised.

The project method is essential to the course, in which students apply and build learning through the realization of design projects, which imply to plan, execute and evaluate a series of activities with the aim of solving a problem and reaching clear objectives. It seeks to confront students to situations that lead to rescue, understand and apply what is learned in class and field trips to solve design, environmental, and social problems.

Field trips promote direct and participatory learning, reflected in field trip reports, in which the scientific method is applied.

Information and Communication Technologies represent tools for continuous use in the course.

The role of the professor is to mediate, facilitate and guide the teaching and learning process, allowing students to build and self-regulate learning, based on their previous and significant knowledge; the student is active, the teaching-learning process is collective and socialized. It also fosters social integration, the development of group work skills, community feeling and respect, without neglecting individualization.

EDUCATIONAL RESOURCES

In order to guarantee good development of the course, therefore, to guarantee learning, the following resources are available: an updated bibliographic database, multimedia equipment that students can use for their individual presentations; whiteboards and other school equipment for weekly sessions, and readings provided by the educator. Most of the lessons will take place in the classroom. During independent work periods, students will be able to attend the institution.

A campus library, study rooms, and computer labs are available for the students´ independent work time. Free Wi-Fi connection for students, educators, and staff is provided on campus, which gives students the possibility to work not only in the library or computer labs, but also around campus.

LEARNING EVALUATION

Evaluation compiles and evaluates evidence by taking into account feedback providing pre-established criteria. The course evaluation must be aligned with the competencies and the teaching methodology. There is a rubric for each evaluation resource, and the details will be provided in **CANVAS LMS**. Even though the rubric grants a grade, it is also a quantitative and qualitative description of the students´ performance. The rubrics include the core and discipline key competences.

ASSIGNMENTS	**PERCENTAGE VALUE**
Design progress presentations:10% each	**20**
Permaculture design project Project portfolio (10%): Project report (15%): 3D Model and presentation: 11% Peers assessment: 3%	**42%**

Self-assessment: 3%	
Veritas' garden Logbook Observation and data registration: 5% Active work: 5%	**10%**
Current event presentation	**8%**
Field trips report/presentation (10% each)	**20%**
Total	**100%**

* Personal opinions are expected to be supported by theoretical and/or experimental argumentation. Evaluation specifications and rubrics must be consulted by students; the professor is not responsible for constant reminders since the information is provided from the first-class day.

LEARNING STRATEGIES

For all assignments punctuality and good organization will be evaluated.
The following learning strategies will be carried out:

1. **Permaculture Design Project**

Students develop a permaculture design project along the course. Design projects are group assignments representing 42% of final grade. The knowledge addressed in the course is applied to solve a problem, integrating the theory of Permaculture strategies, principles, and techniques. The project is carried out individually or in small groups depending on the number of students enrolled.

The project includes continuous improvement, as progress is made in the course contents, improvements may be applied to the previous stages as indicated by the professor. The project must be supported by the principles of Permaculture, the decision to include each element and technique must be defended under the framework of regenerativity,

integrality and efficiency. The project is evaluated through the course as a portfolio containing different products, a report, a model and a presentation.

2. **Project progress presentations:**

Group work allows developing important attitudes, values, and skills, such as tolerance, respect, solidarity, leadership, teamwork, and communication, as well as knowledge integration and equity. The assignment consists of presenting to the class in two different occasions (10% each) the progress of the final project. This also helps students with following a plan for preparing the final projects and avoiding procrastinating and miscalculating time investment.

Active participation of each group member will be evaluated. Questions for class discussion are expected and the group can include an evaluation or interactive activity if wanted. Presenting time plus questions and discussion will be maximum 30 minutes, depending on the number of students enrolled; the presentation must be uploaded to Canvas at least the day before presenting. Each presentation is 10% of total grade. No report is required, only the presentation using google slides, Power Point, Prezi or any other useful tool for presenting, even real paper is allowed as long as it accomplishes the purpose of presenting and as the presentation is uploaded to Canvas as a pictures organized and understandable file.

3. **Veritas' garden Logbook**

The preparation of a logbook is intended to record observations and periodic activities during visits to the Veritas Garden. The registry works both as an evaluation tool and a self-learning tool and is an indispensable resource in the application of Permaculture strategies.

Through this instrument, the capabilities of systematic observation, data collection, information organization, identification of the need to deepen specific issues, creativity, decision making, teamwork and analysis are promoted. VERITAS's garden active work is an opportunity to gain extra knowledge and practice techniques.

The log book is meant to be digital, using any useful known tool and uploaded to Canvas on time, it can be presented as a video, but same criteria as a written one will apply. If students wish to use a physical logbook, then a file with clear pictures of it must me also uploaded to Canvas and the physical book delivered to professor.

Each student must visit the garden regularly, designating a minimum of 16 hours/student for active work, data collection and observations. Observation hours can be distributed according to students' agenda but considering University schedule at zone 8.
Active work must be previously discussed with the professor and carried out by students on their own. The professor will visit and assess the work randomly and give feedback about it to students. The schedule and health protocols for visiting the garden will be informed during the course. Students will be asked to sign up for their working dates on a calendar, any change of date due to justified eventualities must be approved by the professor.

4. **Veritas garden work and observation logbook**

These are the basic aspects to include on each observation period, for your Logbook entries.

5. **Current event presentation**

Each student chooses an event of interest in the Permaculture field within a period of a year. The specific issues to be discussed are of free choice referring, as far as possible, to national, regional or Neotropical events. Each student researches at least three sources regarding the chosen event and presents it to the class, providing opinions supported by

class content and robust analysis, and brings 1 to 3 generating questions to promote class discussion. Presenting time plus questions and discussion will be 15 minutes maximum, depending on the number of students enrolled; the presentation must be uploaded to Canvas at least the day before presenting. The assignment is 8% of the total grade.

6. Field Trips reports

The field trip reports allow the student to analyze the systems visited. In the reports, robust analysis is expected as well as ideas for improvement. Each field trip has clear objectives given by the professor, specific content to be covered and discipline techniques to implement. The field trip report **summarizes the activities** covered during the trip, the **results of the applied techniques** are discussed and **observations are contrasted** with the content learned in class, Conclusions are made based on observations, results and analysis and recommendations are made both at the application level of the sites visited and the learning experience. A high level of literature analysis and research is expected for the preparation of reports. Two reports are prepared (one for each field trip) in groups of two to three students. Reports can be presented as videos or written, but whatever version is used it must include all the described elements (see rubric). Each report is 10% of the final grade.

ATTENDANCE

Regarding classes:

1. Students are only allowed a total of two (2) nonconsecutive (back-to-back) **class absences**. A student shall fail the course if more than two absences are registered.

2. Three **late arrivals to class** (within the first 15 minutes) are treated as one absence. Attending class 30 minutes late without an official justification will count as an absence.

3. In the case of an **absence from any assignment evaluated in class** (presentations, evaluations, field trips, etc.) a student will be given a grade zero unless an official document is presented within one week of the absence.

4. On presentation of the official justification to excuse the absence, the missed assignment shall be presented on that same day in order to avoid a grade zero.

Regarding field trips:

5. An unjustified **absence on a field trip** will immediately result in the loss of all points assigned to that specific trip. However, if an official document justifying the absence is presented, 50% of the assignment points may be obtained on presentation of a complementary research assignment, to be agreed upon with the professor, within one week of the field trip.

6. An absence on a field trip may be justified should two course field trips coincide. In such a case, and in order to avoid losing points, students shall be able to opt for carrying out a research assignment.

CODE OF CONDUCT

Professors have the right to expel a student from the classroom should he/she/they:

1. Be disruptive in the classroom
2. Behave in a disrespectful way
3. Be under the influence of alcohol or even smells of alcohol
4. Be under the influence of any illegal drug
5. Show hygiene-related problems that may disturb other students

ELECTRONIC DEVICES

The use of cell phones, smartphones, or other mobile communication devices is disruptive and is therefore prohibited during class. Students will be requested to turn all devices OFF and put them away when class begins. These may be used only when the professor assigns a specific activity including Internet-related searches and other processes. Those who fail to comply with this requirement will be asked to leave the classroom for the remainder of the class period.

PROGRAM POLICIES

The student must comply with the provisions of Universidad Veritas CIPSS Student Policies available on the Canvas platform.

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CHRONOGRAM

Week	Content	Learning strategies
1 and 2	**Course introductions** **Unit 0. Why?** 0.1 Dissecting problems. 0.2 The need for newer approaches.	Course syllabus Lectures and class discussions Reading analysis

	0.3 Permaculture background. 0.4 The importance of Ecology: Natural succession processes and implications.	
2 to 4	**Unit 1. Permaculture Ethics and Design Principles** 1.1 Ethics. 1.2 Guiding principles. 1.3 Natural systems and Design principles. 1.4 Patterns. 1.4.1 Patterns in design. 1.4.2 Patterns in practice.	Current event Lectures and class discussions Reading analysis
5 to 8	**Unit 2. Strategies, methodologies and techniques to design** 2.1 Base map. 2.2 Analysis of elements. 2.3 Site analysis and sectors. 2.4 Zones. 2.5 Observation and data collection. 2.6 Client survey. 2.7 Implementation plan and techniques.	Portfolio Lectures and class discussions Reading analysis First project revision Field trip report Field trip presentation
9	**Unit 3. Water** 3.1 Water cycles. 3.2 Water management. 3.3 Water in landscape. 3.4 Aquaculture.	Portfolio Lectures and class discussions Reading analysis Logbook
9	**Unit 4. Soil and nutrient cycling** 4.1 Soil formation and classification. 4.2 Soil analysis and interpretation.	Portfolio Logbook

	4.3 Creating soil.	Lectures and class discussions Reading analysis
10	**Unit 5. Forests and Trees** 5.1 Natural forces (wind, light, rain). 5.2 Biomes, ecosystems and types of forests. 5.3 Establishment of a forest.	Portfolio Logbook Lectures and class discussions Reading analysis
10	**Unit 6. Establishment of Vegetation and Trees** 6.1 Analog forestry. 6.2 Orchard systems. 6.3 Tree planting tips. 6.4 Laying down the garden. 6.5 Garden strategies.	Portfolio Logbook Lectures and class discussions Reading analysis Second project revision
11	**Unit 7. Wildlife and domestic animals' management** 7.1 Wildlife importance. 7.2 Integration importance. 7.3 Domestic animals' management. 7.4 Wildlife and biological pest control. 7.5 Regenerativity in the design.	Portfolio Logbook Lectures and class discussions Reading analysis
11	**Unit 8. Structures, settlements and social aspects** 8.1 Structures and settlements. 8.2 Economy (Money and goods). 8.3 Sense of place and belonging. 8.4 Community life and settlement design.	Portfolio Logbook Lectures and class discussions Reading analysis
12	**Unit 9. Urbanity and community**	Portfolio

	9.1 The design in the city. 9.2 Design and techniques for urban gardens. 9.3 Strategies for horticulture in community. 9.4 Water in the city. 9.5 Energy solutions for the city. 9.6 Community empowerment. 9.7 Tools for regenerative cities.	Logbook Lectures and class discussions Reading analysis
12	**Unit 10. Project presentations and Further steps**	Design Project presentation, model and report Portfolio Logbook