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. The course requires reading in extra class time, students interested in taking the course must set aside free time for the readings.

*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 and guiding principles.

1.2 Design principles.

1.3 Patterns.

Unit 2. Strategies, methodologies and techniques to design

2.1 Mapping techniques: Base map.

2.2 Site analysis and scale of permanence

2.3 Sectors and Zones.

2.4 Analysis of elements and energy flow.

2.5 Client interview.

2.6 Implementation plan and techniques.

Unit 3. Water

3.1 Water cycle.

3.2 Water in landscape.

3.3 Water management.

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 Biomes, ecosystems and types of forests.

5.2 Analog forestry.

Unit 6. Wildlife and domestic animals' management

6.1 Wildlife importance.

6.2 Integration importance.

Unit 7. Structures, settlements and social aspects

7.1 Structures and settlements.

7.2 Economy (Money and goods).

7.3 Ecofeminism

7.4 Herbalism

7.5 Mushrooms, fermented food and drinks production

Unit 8. Project presentations and Further steps

8.1 Project presentation

8.2 Celebration and closure

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. 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**
Permaculture design project	**60%**

Project portfolio (18%): Project report (15%): Progress presentation: 6% Final project presentation: 15% Peers assessment: 3% Self-assessment: 3%	
Veritas' garden Logbook **Entries: 9%** **Activities (explained in class): 8%**	**17%**
Field trips report/presentation (7% the first one and 10% the second)	**17%**
Current event presentation	**6%**
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 AND RUBRICS

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 a group of assignments representing 60% 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 in groups (number of members to be defined depending on the amount of students enrolled in the course). Each group must:

a. Design in a real site: Veritas garden will be the site to design due to its vicinity to the university, the amount of time students need to spend on site, and for the professor to be able to provide feedback and guidance. If a group wants to design elsewhere, the group must choose an area in which the design can really be implemented, the area must be real, known by at least one of the students, and the entire group must be able to constantly visit it.
b. Define a central problem/goal to be solved/achieved through the design and the objectives to be addressed. Objectives derive from a clients' idea and are defined using one or more interviews and surveys.
c. Diagnose the environment to be intervened considering Permaculture strategies:
   - Characterizing the site and community.
   - Identifying tangible energies/elements on site and from outside according to their permanence.
   - Identifying intangible energies/elements on site and from outside.
   - Identifying current patterns.
   - Identifying current interactions between different elements (tangible and intangible).
   - Identifying needs, opportunities, and available resources (tangible and intangible)
   - Zones mapping (for the current zones)

d. Propose the resolution to the problem/goal through the design using and creating:
   - A reference map (base map).
   - Element's analysis (elements to be included in the design)
   - Sector analysis.
   - Zones mapping (for the zones to be included)
   - Efficiency and Regenerativity analysis (flow showing how the different elements interact and create a regenerative and sustainable pattern).
   - Approximate budget analysis.

- Master map.
- Community involvement strategy.
- Schedule (Step by step implementation plan).

Each group presents their progress around the middle of the course time, and their final design at the end of the course.

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, and two presentations as follows:

- **A portfolio including**:
- Base map as the base layer.
- Analysis of elements.
- Site analysis.
- Sector analysis as a layer.
- Zones map as a layer, including elements.
- Master map: zones, elements, and sectors in one final map (independent from the layers).
- A list and description of each element to be included on the design.
- A flow chart showing the interactions between elements to achieve regenerativity.
- Results from clients' interviews and survey.
- Complementary notes, resources and sketches.

Rubric for Permaculture Portfolio 18%

Criteria	**Pts.**
Punctuality: The portfolio was submitted on time to the Canvas corresponding section.	1
Base map: An A4 minimum size map of the site is presented on time, hand or computer made. It is clean, shows all the different current elements of the site according to the scale of permanence, includes a key (legend), all elements are labeled, cardinal points, scale, and current tangible and intangible energies are labeled and clearly placed (such as noise, paths, land shape, water sources, roads, trails and paths, vegetation, infrastructure, fences, soil, wind currents, roads, shade, light, among others)	2
Analysis of elements: A table of elements to be included in the design is presented. Each table includes a column for the intrinsic characteristics of the element, a column for the element's needs, and a column for the element's yields. At least 3 rows are provided for each element. **One page** describing why the elements were finally chosen for the design and how the different elements connect (in terms of energy and resources) is presented.	2
A flow chart showing the interactions between elements is provided. Arrows of different colors are used to connect and show the input-output flow from and to each element, it is organized, clean and easy to understand.	2
Sector analysis: At least one **map** is provided showing the accurate influence and intensity of each sector (tangible and intangible) on the site, considering orientation, topography, and accurate measurements. The map layer is clear and fits the base map, its clean, and organized, includes a key	2

(legend), each sector is labeled and the organization makes the map reading easy and understandable.	
Zones: A zones map is provided showing the accurate final zones layer, including elements/systems (composting piles, swales, water systems, forestry, gardens, animals, among others). The layer is clear and fits the base map, its clean, and organized, each feature is labeled, includes a label chart, cardinal points and scale, the organization makes the map reading easy and understandable.	2
Master map: A final map is presented showing all the zones, sectors, and elements of the design. It is clean, all elements are labeled, cardinal points are visible, sectors are included in one corner of the map (visible and understandable, using a different color for each sector). It includes a label code/chart, is clear and organized. **This map is a different one from the building up of layers,** this represents the final product in which each layer is included as one map and is delivered to the client. **The size of this map is smaller** than the zones, sectors layers, and basemap, to make it easier to create. The professor will designate a size in class according to the availability of paper for the course.	5
Complementary notes, resources and sketches: intermediate products such as site analysis, client interviews and survey, specific topography or sectors studies, among others are presented, providing evidence of the gradual development of the project.	1
Organization and aesthetics: The portfolio is organized, images are clear and properly labeled, the product is understandable, and follows a logical order.	1

- **A report including**:
- Heading.
- Introduction.
- Problem and objectives.
- Site analysis, including site description, current zones and elements description.
- Design proposal including the following sub-sections:
- Efficiency and Regenerativity analysis: elements analysis table and flow chart with description of efficiency and Regenerativity for the flow chart.
- Community involvement strategy.
- Images of each of the maps or layers: zones map with elements, sectors map, and master map, each one with a description and properly labeled.
- Implementation plan: Schedule and budget.
- Conclusions and possible future improvements
- Bibliography.

Rubric for Final Permaculture project report: 15%

Criteria	**Pts.**
The report includes a **header** with the name of the university, name of the students, name of the course, the title of the project and a line that separates the header from the rest of the work.	1
Organization: body of the work is structured in chapters and topics. The work consists of the following sections: o Introduction o Problem/goal o Objectives (at least 3) o Site analysis including site description, current zones and current elements description, with images of site analysis maps and layers.	1

○ Design proposal including the following **sub-sections**: Efficiency and Regenerativity analysis: elements analysis table and flow chart with description of efficiency and regenerativity for the flow chart, Community involvement strategy, Maps: images of each map and layers: base map, proposed zones layer with elements, sectors layer, and master map, each one with a description and properly labeled, Implementation plan (schedule and budget) ○ Conclusions and possible future improvements ○ Bibliography	
The **introduction summarizes** in no longer that 250 words the content of the report and **establishes the importance** of implementing the proposed design. The main and secondary ideas are understandable and well organized, follow a logical sequence and allow you to create a general idea of what the document includes.	1
The report includes a clear and precise **problem/goal and at least 3 objectives to be addressed, according to the problem established and the client's interview. Each objective is associated with several Permaculture principles to be achieved.** This section also describes the most general characteristics of the site and client. It includes the summary of the clients' interviews and surveys as a description of the problem/goal to be solved/ achieved. **Note:** this is an input for final presentation.	2
The **Site analysis** including site description, current zones and current elements description. It includes a fair description of the environment in which the design will be implemented in all its dimensions (ecological, physical and socioeconomic), including the former and current use of the site, the most important ecological factors considered (type of climate, soil, native and current biodiversity, community type (s) and behaviors, among others).	2

This section also includes the clear images of **map layers and description**: base map, sectors map, current zones. **Note:** this is an input for progress presentation.	
The **design proposal section** provides a clear idea of the team perspective and planning; it includes several subsections: o Efficiency and Regenerativity analysis: analysis of elements to incorporate as a table (**same as to include in the portfolio**), flow chart of the elements interaction (**same as to include in portfolio**) in terms of energy (integrality between each subsystem and the broad system with a description regarding products and surplus interactions), including the functionality of each subsystem, the application of Permaculture principles, and considering the ecological reality of the environment in which the project will be developed. The choice of each subsystem (tangible and intangible) and the explanation of how they solve the central problem/goal and objectives is provided. o Maps: clear and labeled images of each map and layers: proposed zones map with elements included, sectors map (yes, again, same as in site analysis), and master map, each one with a description and properly labeled. **Note**: these are the **same as the portfolio maps, and are input for progress and final presentations**. When the project involves a high level of community integration and/or community objectives the strategies presented are highly specific and therefor a section for this description and explanation is included. When the project involves educational objectives highly specific educational plans are presented in a proper section.	3

The proposed design is **supported** with bibliography and considers the concepts studied.	
The **implementation plan** includes the step by step methodology description necessary to actually implement the design. It includes the list of materials and an approximate budget for each system/element considering building, buying, trading, contracting, etc. as much as possible; The schedule can be presented with a Gantt matrix, using months and weeks versus activities. The budget is aprox, but as close to reality as possible. It also includes a sub section describing possible future improvements. **Note:** this is the **same as the portfolio** implementation plan.	2
The conclusions and possible future improvements section presents conclusions using bullets, directly related to the defined objectives and design proposal. Possible future improvements aim client and future students to improve regenerativity and sustainability aspects as well as recommend improvement in the design process. **Note:** this is an input for final presentation.	1
The report includes literature **references** inside the text wherever necessary and a specific section with the **bibliography** used. **APA style** last version is used in all cases for references of text, images, links, websites, videos and any other information source. At least five bibliographical sources were consulted.	1
The report was submitted on Canvas corresponding section on time.	1

- **A progress presentation:**

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 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.

Participation of each member will be evaluated. Questions for class discussion are expected. 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. This presentation is 6% 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. The progress presentation includes:

- Base map as the base layer.
- Analysis of elements and flow chart.
- Site analysis.
- Sector analysis as a layer.

Rubric for progress presentation: 6%

Criteria	**Pts**
Students presented the **base map** on time, clean, and clearly showing each element of the current site (such as climate, noise, paths, land shape, water sources, roads, trails, vegetation, infrastructure, fences, soil, wind currents, roads, shade, light, among others). Ecological information of the site is provided as a way of answering the question "Where am I/are we?". **Note:** This information is input for the **portfolio, logbook, and report**.	2
Site and sectors analysis is provided in a logical and understandable way that compiles the most important variables of the site to consider in design and implementation, according to the site's survey, content studied in class, and	2

students' observations of the site. Possible problems and improvement opportunities are presented, as well as site elements' potential. **Note:** This information is input for the **portfolio, logbook, and report**.	
A **flow chart** showing energy flow and efficiency (ins and outs from and towards each element according to interactions) of the **current** elements is presented. A different color is used for each element and elements' interactions as arrows. **Note:** This information is input for the **logbook**.	1
A list of possible **elements** (3 tangibles and 3 intangibles minimum) to include in the design proposal together with their **analysis** tables are provided. The main ideas are clear. **Note:** This information is input for the **portfolio and report**.	1

- **A final project presentation:**

The final presentation includes:

- Results from clients' interview: Problem and objectives summarized.
- Base map (improved if necessary).
- Sectors layer (improved if necessary).
- Zones layer, including a description of elements to be incorporated, emphasizing Permaculture principles and Ethics achieved.
- A flow chart showing the interactions between elements to be incorporated.
- Master map.
- Implementation plan.
- Conclusions and possible future improvements.

Presenting time plus questions and discussion will be 30 minutes' maximum, depending on the number of students enrolled; the presentation must be uploaded to Canvas at least the day before presenting.

Rubric for final presentation: 15%

Criteria	**Pts.**
The **results from clients' interviews** are presented. Related to these results a central problem/goal and a minimum of 3 objectives are presented.	2
A **zones layer that includes elements** is presented on time, clean, and organized, using colors and labels. An explanation of the different variables and elements to consider for design on each zone is provided emphasizing Permaculture principles and Ethics achieved. Each zone also includes a description of the provided improvement, extension and/ or narrowing and/or relocation according to the site analysis; relevant ecological and social information is provided. **This layer is presented over the base map used for the progress presentation (improved if necessary). The sectors layer (improved if necessary) is also presented over the base map or as a label in one corner of the zones layer or base map. Note:** this is the **same as the portfolio** zones map.	3
Master map is presented: A final map is presented showing all the zones, sectors, and elements of the design. It is clean, all elements are labeled, cardinal points are visible, sectors are included in one corner of the map (visible and understandable, using a different color for each sector). It includes a label code/chart, is clear and organized. **This map is a different one from the building up of layers**, this represents the final product in which each layer is included as one map and is delivered to the client. The size of **this map is smaller than the zones**, sectors layers, and basemap, to make it easier to	3

create. The professor will designate a size in class according to the availability of paper for the course. **Note:** this is the **same as the portfolio** master map.	
A **flow chart** showing the **interactions between elements** to achieve Regenerativity. Reasons for including and/or excluding previously considered elements into or from the design are explained. **Note:** this is the **same as the portfolio** flow chart.	1
An implementation plan of the design showing the "step by step", schedule and aprox budget is presented. **Possible results and solutions** to negative results are described. **Note:** this is output from **the portfolio and report** implementation plan.	2
Students present punctual **conclusions** as a list and **improvement ideas** for the future. **Note:** this an output of report.	1
The presentation accomplishes good organization, logic flow of ideas, and aesthetics, it also shows balance between text and images. **Effort and preparation** are evident.	1
Each member of the group participates in the presentation, and there´s balance in the assigned parts for each member to present.	1
The presentation was submitted on time to the corresponding section of Canvas.	1

- **Peers assessment**

Each group member evaluates peers in Canvas corresponding section, according to the following rubric:

Peers' assessment rubric for design projects (3%)

Criteria	Pts.
The **responsibility** and **participation** was **constant throughout the process** of the project. The student was punctual in delivering specific contributions, meeting agreements and attendance to scheduled meetings.	1
Theoretical and practical contributions were of the agreed quality, the investment of **time and effort in the search for information**, **organization** of work and **construction** of the products was fair and contributed to carry out the work successfully.	1
The **treatment** with all the members was **respectful, tolerant and positive** throughout the project.	1

- **Self-assessment:**

Each student self-evaluates his/her performance during the project and all the products creation. This evaluation is done on Canvas corresponding section using the following rubric:

Self-assessment rubric for design projects (3%)

Criteria	Pts
I was **responsible** throughout the process of the project. I showed **punctuality** in delivering specific contributions, meeting agreements and attendance to scheduled meetings. I **dedicated time and effort** to the assignment. I made my **research in advance** in multiple reliable sources of information.	1
I provided theoretical and practical contributions of the agreed quality, I invested a fair amount of **time and effort in the search for information**, **organization** of work and **construction** of the model and contributed to carry out the work successfully	1

I treated all the members of the group respectfully, I had a tolerant and positive attitude to all throughout the project.	1

2. Veritas' garden Logbook

The preparation of a logbook is intended to record observations and periodic activities during class and 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. The professor will designate specific activities in class to be included in the logbook. Students are expected to follow the garden's rules:

a. Be punctual and sign up for visits.
b. Wear working shoes, sneakers, or other closed shoes. Sandals or flip flops are not allowed.
c. Use tools carefully and leave them clean in their place when you finish.
d. Collaborate with a positive and integrative attitude.
e. Respect all peers and visitors.

Logbook entries are 9% of final grade.

Activities designed by professor are 8% of final grade.

3. Veritas garden work and observation logbook

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

Observer: **Date:**	**Area to be observed:** **Observation time:** **Senses used to observe:**
List of elements and or systems observed:	List here systems, elements and energies or sectors observed, natural elements, people, structures, forces, interactions, among others.
Description of tangible elements observed:	Describe here each tangible element observed from the perspective of each sense used to observe.
Description of intangible elements observed:	Describe here each intangible element observed from the perspective of each sense used to observe.
Description of interactions:	Describe here all the interactions between elements observed, including the ones you performed: watching,

	touching, smelling, walking, eating, or any other and all the feelings and sensations experienced.
Principles identified:	List the permaculture principles identified to be present or needed for the specific element or system observed and explain.
My insights and conclusions:	List your conclusions and insights, add content that can help you bind this entry with the next one and create a bond between your observations. Use the observation to conclude useful design ideas and potentiate the site and efficiency. Include sketches, drawings, and/or pictures.

Rubric for VERITAS's garden logbook:

Active work and observation criteria	**Pts.**
Signs up for visits, arrives punctually, arrival is registered on the register list.	1
When performing active work: o Follows instructions according to what was previously agreed with professor and classmates. Works efficiently and uses time according to what is specified in agreements. o Uses tools and resources carefully and leaves tools clean in their place after finishing the work. o Relates to peers and instructor with respect, showing empathy and assertive communication. Works with a positive and collaborative attitude. Contributes with questions and comments related to the different topics being learned, the student's interventions help improve the group's knowledge.	3

Note: if active work is not performed, these points will be added to the 3 following criteria.	
Presents a minimum of 8 different entries of 2 hours each or the corresponding amount hours in relation to amount of entries and visits. **Each entry provides the information delimited on the entries table for work and/or observations (above).**	1
Elements observed are listed and described, as well as the different interactions between elements and between elements and the observer.	1
There is an evident relation between each entry, showing an increase in detail of the observations and analysis of the different interactions.	1
The logbook is organized, clean, and easy to understand; ideas are clear, effort and time dedication are evident.	1
The logbook was delivered on time.	1

Designated activities: to be explained in class.

- Patterns (to be explained in class): 2%
- Insight on Ethics and Principles of Permaculture: 2%
- Food chains and decomposers: 2%
- Carbon and water foot prints: 2%

4. 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 6% of the total grade.

Rubric to evaluate current event presentation

Criteria	**Pts.**
Preparation and presentation of the topic with at least 3 reliable and respectable **sources** of information (scientific journals, prestigious institutions, physical and digital newspapers, others). The student summarizes findings in an articulated and flowing way.	2
Relevance and topicality of the event, depth of personal analysis and a robust opinion is provided.	1
Preparation of at least one generating **question** for class discussion. **Moderation** of the participants: gives the word to each person in order, allows for different perspectives to be expressed, answers specific questions about the topic.	1
The presentation shows balance between text and images, aesthetics, organization and coherence.	1
Submission of the topic, consulted sources and generating question one week before the presentation.	1

5. Field Trips report and presentation

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. Only the first field trip includes a report, which **summarizes the activities** covered during the trip, discusses efficiency and Regenerativity, discusses the **results of**

the applied techniques and **observations are contrasted** with the content learned in class, Conclusions are made based on observations. A high level of literature analysis and research is expected for the preparation of report. The report is prepared in groups of 3-5 students depending on course enrollments. This Report can be presented as a video or written, but whatever version is used it must include all the described criteria (see rubric). If a video instead of a written report is presented, it must be equally organized and include images of the site and activities. This report is 7% of the final grade.

Field trip #1 report:

Criteria	**Pts.**
The **report** includes a **header** with the name of the university, the student, and the course, the title of the assignment and a line that separates the header from the rest of the work. It presents order and cleanliness. It has good spelling and punctuation. **Organization of the report:** body structured according to chapters and themes: o Introduction and objectives, o analysis of efficiency, integration and sustainability of each subsystem and the project, o conclusions o bibliography.	1
The introduction includes important ecological data of the site and provides a general idea of the content of the report. The **objectives** of the field trip and of the application of field techniques are presented.	1
The **summary** lists and describes all the substantive activities carried out during the trip.	1
The **analysis** of subsystems and of the project visited is clear and reflects the use of the knowledge gained along the course, compares onsite observations	1

and the bibliography consulted. Data is presented in tables, charts and graphs according to their nature and following the APA format. Personal appraisals based on theory are presented. Proposals for improvement to the project visited are included considering efficiency, principles of permaculture, and regenerativity.	
The **conclusions** are presented as a list using bullets and include recommendations based on what was discussed in the analysis chapter. **Personal appraisals** based on theory are presented. **Proposals** for improvement to the project visited are included considering efficiency, principles of permaculture, and regenerativity.	1
The **bibliographic sources** follow APA style latest version both within the text of the report and in the bibliography chapter. At least three bibliographical sources were consulted.	1
The student participated during the trip activities outdoors and indoors, showing collaborative attitude, interest, respect, and punctuality in all activities. The report was submitted to corresponding section on Canvas on time.	1

Field trip #2 presentation (10%):

This field trip does not require a report, but an onsite design presentation. It will be performed in groups of 5 or more students according to course enrollments. All materials will be provided onsite.

Criteria	**Pts.**
Project **objectives** are presented according to the client interview, are clear and concrete. Verbs in infinitive are used.	1
Sector analysis includes the main energies impacting (positively or negatively)	1

the project area and the direction where those impacts come from.	
Base map describes the project area including what is already in place (climate, land shape, water, roads, trails, vegetation, infrastructure, fences, soil, etc). (A useful tool to use is the scale of permanence).	1
The list of **elements** fulfills the projects' objectives. A table describing intrinsic characteristics, needs and yields of elements is included (includes the elements already in the area and the new ones to include).	1
Zones map shows the permaculture zoning according to the use necessity of each area and its elements	1
Final design map follows the project objectives, includes the necessary elements and their relative location is stablished using the permaculture design principles. An explanation of the permaculture design principles used in the final design should is included	1
The **presentation** shows originality and aesthetics topics are presented in logical order, every member of the group presents similar amount of information. Presentation tools (slides, maps, posters, etc.)are used and text is shows only key ideas, images are used to explain content, color contrast and letter size facilitate reading.	2
Students **show respect and tolerance** to everyone during the process and presentation (good attitude, harmony and respect) and value other members (listen to others and their ideas, tries to keep people working well together). When presenting, students demonstrate **knowledge assimilation** (security when presenting, readjust key notes, answer questions from the group and professor).	2

6. General format for assignments

A specific rubric is provided for each assignment, so the students can know in advance the way they will be assessed. The following are general but **mandatory** requirements for all written assignments:

- 12 pt. Times New Roman Arial, Century Gothic or Calibri font, in letter size pages
- 1.5 spacing
- Name, class, and date in header *
- Submit electronically to Canvas platform, not to professors' e-mail account
- References must be included in text and a references section must be included at the end of each assignment using APA style, most recent version.

*** Header Example:**

Veritas University

Permaculture for a regenerative culture

Field Trip Report #1: Finca Passiflora

Amanda Calvo Santana January 7th, 2020

- Use a line to separate heading from the rest of the report
- Leave a space between the header and the beginning of the text
- Do not include the header on every page, but only on the first one

All written assignments have a deadline to be sent, and will not be received after this deadline, without exceptions. It is each student's responsibility to be aware of each assignment deadline.

**Note: Remember to use third person for all your written reports

For APA style:

A tutorial can be found in the following link: http://flash1r.apa.org/apastyle/basics/index.htm .

- For website references:

http://www.apastyle.org/learn/quick-guide-on-references.aspx#Websites or http://blog.apastyle.org/apastyle/2010/11/how-to-cite-something-you-found-on-a-website-in-apa-style.html .

All pictures and images must be cited in the text (for example: “see figure 1”). Each image, figure or diagram must include a centered title at the top and a short legend briefly describing the content and the source must be added at the bottom.

The following aspects will always be considered for all Presentations:

- **Preparation and content**: topic relevance, knowledge assimilation, answers to classmates’ and professor questions, and content depth due to evident research.
- **Organization and style**: smoothness, independence from notes and devices, speaking clarity, slides clarity and aesthetics, text and images balance.
- **Time limit respect**: each presentation has a time limit; students will be informed about this in advance.
- **Opinion**: robust opinion reflecting serious analysis of the topic and previous research.
- **Punctuality**: presentations must be presented on the assigned date, not following this rule means a grade of 0% on that presentation unless the absence or lack of assignment is properly justified.

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 to 2	**Course introductions** **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.	Course syllabus reading in class. Lectures and class discussions Reading analysis
2 to 4	**Unit 1. Permaculture Ethics and Design Principles** 1.1 Ethics and guiding principles. 1.2 Design principles.	Current event Lectures and class discussions Reading analysis

	1.3 Patterns.	
4 to 6	**Unit 2. Strategies, methodologies and techniques to design** 2.1 Mapping techniques: Base map. 2.2 Site analysis and scale of permanence 2.3 Sectors and Zones. 2.4 Analysis of elements and energy flow. 2.5 Client interview. 2.6 Implementation plan and techniques.	Portfolio Lectures and class Discussions Reading analysis First project session
6 to 7	**Unit 3. Water** 3.1 Water cycles. 3.2 Water management. 3.3 Water in landscape.	Portfolio Lectures and class discussions Reading analysis Logbook
7 to 8	**Unit 4. Soil and nutrient cycling** 4.1 Soil formation and classification. 4.2 Soil analysis and interpretation. 4.3 Creating soil.	Portfolio Logbook Lectures and class discussions Reading analysis
9	**Unit 5. Forests and Trees** 5.1 Biomes, ecosystems and types of forests. 5.2 Analog forestry.	Portfolio Logbook Lectures and class discussions Reading analysis
10	**Unit 6. Wildlife and domestic animals' management** 6.1 Wildlife importance. 6.2 Integration importance.	Portfolio Logbook Lectures and class discussions

		Reading analysis
10 to 11	**Unit 7. Structures, settlements and social aspects** 7.1 Structures and settlements. 7.2 Economy (Money and goods). 7.3 Ecofeminism 7.4 Herbalism 7.5 Mushrooms production **Note:** Workshops of this unit will have place in different times along the course and not necessarily at the end.	Portfolio Logbook Lectures and class discussions Reading analysis
12	**Unit 8. Project presentations and Further steps** 8.1 Project presentation 8.2 Celebration and closure	Portfolio Logbook Project report and final presentation