

CENTER FOR INTERNATIONAL PROGRAMS & SUSTAINABILITY STUDIES

COURSE NAME: Environmental Impact and Social Development

COURSE CODE: ENV 3005

TOTAL CONTACT HOURS: 60 hrs 4 credits

Course Description

This course is an introduction to the study of major environmental problems and social issues confronting modern society. Students will examine ecosystems, population patterns and dynamics; use and misuse of resources; population and environmental quality; environmental citizenship, economic incentives and Costa Rican initiatives in eco-tourism. Introduce the student to environmental problems and their socio-economic implications in Latin America, using Costa Rica as an example. Study current and actual cases about conservation and management of biodiversity and wildlife. Visit different scenarios where the relationship between environment and society will be studied. As well the course provides an overview of environmental impact assessment to design, evaluate, and replicate sustainable projects and programs. The course develops the tools to assess natural resources protection, improvements in population health, positive social impacts and poverty reduction, and economic appraisal that includes sustainability measures at least cost. Students practice assessment methods at project and strategic levels. Integrated assessment using all methods focuses on the agriculture, water, energy, and forestry sectors, applying both project and program analysis. At course end, students apply knowledge and practical methods that inform prudent decisions and support economic growth, social development, awareness and environmental sustainability.

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

How to interpret the ecosystems and human behavior to promote a positive environmental impact and social development within the sustainable practices applied worldwide?

In order to answer this question, this course will study the following:

- Introduction to Costa Rica Natural History
- Development and Environment in Costa Rica
- Environmental Management
- Environmental Legislation
- Ecological Economy
- Environmental Impact Assessments

Along the course, the following skills will be fostered:

- Ability to analyze the different complex ecosystems in the planet.
- Ability to determine when an Environmental Impact Assessment is necessary by methods of investigation, analysis and diagnosis.
- Ability to discuss the importance of an environmental and social positive impact.
- Ability to identify human activities influence in different ecosystems and environments.

Values and attitudes

- Empathy with the environment
- Teamwork and leadership
- Systemic thinking
- Logical and communicative intelligence
- Problem solving
- Learning how to learn

COMPETENCIES, CRITERIA AND EVIDENCE

At Veritas University competencies are reflexive and integrated actions that respond to the professional profile and to context issues ideally and ethically through the integration of abilities, skills and knowledge. What follows are the discipline and core competencies and their correspondent key competencies and evidence of learning for this course.

Competencies	Key competences	Evidence of learning
Integrates the best environmental and social practices to develop positive and sustainable solutions in accordance with ecological principles, taking into account	Analyzes complex environmental and social systems/scenarios considering the use and integration of sustainable techniques, research, analysis and interdisciplinary diagnosis.	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion
the maxims of sustainability, awareness, environmental impact and social management.	Discusses the importance of sustainable environmental impact and social development through the execution of better and sustainable practices in real projects	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion
	Applies environmental impact and social development precedents through a critical revision of local, national, and international practices.	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion
Generic		
Integrates knowledge, skills and attitudes to learn continuously and through one's life pursuing an efficient development in the knowledge-based society.	Learning to learn	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion
Builds the necessary knowledge, skills and attitudes to learn how to communicate orally and in written form in the different disciplines that make up the curriculum.	Communicate thoughts of the discipline orally, iconically, and in written form.	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion
Integrates the necessary knowledge, skills, and attitudes to learn teamwork and leadership techniques.	Execute teamwork and leadership.	Field Trip Report Individual Presentation
Integrates the necessary knowledge, skills and attitudes to learn interpersonal communication techniques.	Relate well to others Manage and solve conflicts Negotiate reliably and empathetically Speak responsibly Listen attentively	Video and Documentary Analysis Individual Presentation Field Trip Report Article Discussion

Contents

Topic1.	Introduction	to the	Natural	History	of	Costa	Rica 🖟	
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- a) Origin 🔛
- b) Geomorphology [5]
- c) Climate [1]
- d) Life zones
- e) Biodiversity [32]

Topic 2. Introduction to Environmental Pollution

- a) History
- b) Urban Pollution
- c) Forms of Pollution
- d) Sources and Causes
- e) Effects (Human Health and Environment)
- f) Regulations and Monitoring

Topic 3. Introduction to Social Development

- a) Definitions
- b) Human Development
- c) Process of emergence of new activities in society
- d) Education
- e) Resources
- f) Limits to Development

Topic 4. Development and Environment in Costa Rica a) Urban growth and industrial development b) Agriculture and agro-businesses c) Ranching, forestry and timber industry [SEP] d) Tourism and coastal & marine development [17] e) Climate Change Topic 5. Environmental Management a) Protected Areas Management b) Eco-tourism c) Certifications d) Clean Production e) Pesticide Use in Costa Rica Topic 6. Environmental legislation [1] a) National Laws and Policies b) International Conservation Policies National Strategy for Biodiversity Conservation d) Threatened, endangered and exotic species regulation Topic 7. Ecological economy [1] a) Economic valuation of natural resources [SEP] b) Economics for sustainability [1]

c) Payment for Environmental Services Programs

Topic 8. Environmental Impact Studies [1]

- a) Definition
- b) Components of an EIA [1]

Methodology

This course implements the active methodology, in which the student is subject to its own learning in all stages. Within this methodology both inductive and deductive methods and several techniques are applied eclectically. Research is encouraged on the essential concepts of Environmental Impact and Social Development, both individually and as a group, through the study of cases that exemplify both the advancement of this science over time and the need to continue using it as a tool to solve current problems. Real cases are used that allow the analysis of environmental impact and social development concepts. Likewise, case studies are used to exemplify in each unit the applications of the discipline in different contexts and to promote the ability to analyze and solve specific problems.

Research is carried out individually, in which all phases of the scientific method are considered and developed. A list of possible topics to be investigated is provided, from which the students must choose one and develop it, whether it is applied research or bibliography. The purpose of applied research is for the student to identify a problem by observing an environmental or social phenomenon and to propose possible explanations and solutions relevant to sustainability in the environment in which he or she lives. The research also allows implementing various techniques of the discipline, increasing the accumulation of tools for management of sustainability in the participants.

The expository technique is used by both the teacher and students, individually and in groups, always promoting the participation of students through their direct intervention in discussions, broadening of concepts and analysis of the topics discussed. As research is a pillar of the subject, the topics to be discussed and exposed in class are first researched at the bibliographic level by the students and to be able to present both group and individual work products.

The field techniques applied in the tours, as well as the direct and participatory learning is reflected in field trip reports, in which the scientific method is applied.

The role of the teacher is to mediate, facilitate and guide the teaching and learning process, allowing the construction and self-regulation of learning by students, based on their prior knowledge; the student is active, the teaching is collective and socialized, since it promotes social integration, the development of group work skills, community feeling and respect, without neglecting individualization. In this line, each student also researches a current environmental and social topic, which is of interest and exposes it to generate a class discussion that allows using the knowledge learned to analyze the situation and propose solutions or improvements.

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.

Attendance

Students are only allowed a total of 2 non-consecutive (back to back) absences. The student will fail the course if he/she has more than two absences. Students will have a 0 on any assignment evaluated in class (presentations, evaluations, field trips, etc.) if he/she is absent unless the student presents an official

document no later than one week after the absence. If the student presents an authoritative report to excuse the absence, he/she must submit the missed assignment on that same day. An unjustified absence to a field trip will immediately mean losing all of the points assigned to the field trip. If an official document is presented for the field trip absence students will have to present a research assignment to obtain 50% of the points. The only exception to this rule is when two-course field sessions collide in programming. Students can then opt for doing a research assignment not to lose any points.

Three late arrivals to class (15 minutes later) are treated as one absence. If you come to class 30 minutes late without an official justification document, it will also count as an absence.

Code of conduct

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

- 1) Be disruptive in the classroom.
- 2) Behave in a disrespectful way.
- 3) Be under the influence of alcohol or even smell like alcohol.
- 4) Be under the influence of any illegal drug.
- 5) Hygiene problems that may disturb other students.

Electronic devices

The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore solicited not to use them during class. **Please turn all devices OFF and put them away when class begins**. Devices may be used ONLY when the professor assigns a specific activity and allows the use of devices for internet search or recording. Those who fail to comply with the rule must leave the classroom for the remainder of the class period.

Clothing and footwear requirements

It is necessary for foreign students to have clothes both for warm climate and for cold (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.

Learning strategies

The following learning strategies will be developed:

- Through video or documentary analysis each student can generate analysis and conclusions
 that help him to internalize the subjects of the course. This activity of seeing and listening to the
 audiovisuals is shown in a report. Amongst the topics to be analyzed with the support of
 audiovisual (documentaries) we can find: Shark Finning in Costa Rica, Genetic Modified
 Organisms Industry, Fracking, Climate Change, Illegal Trade of Species, Illegal Poaching,
 Deforestation and Endangered Species, Minimalism practices, etc. This assignment is 40% of the
 total grade (10% each)
- Individual Presentations are meant to develop specific skills and abilities in the student, such as research skills, analysis and synthesis, self-confidence, time management, and responsibility. At the same time, students have the opportunity to choose a topic of interest related to Environmental Impact and Social Development, and present it the way they want, which makes the experience significant. Each student delivers a report that summarizes the research findings and prepares an exposition using PPT, Prezi, or another useful presentation tool, even posters are allowed. Students use extra class time to research and prepare their reports and presentation

which needs to be approved by the professor at least 15 days before deadline. Presenting time plus questions and discussion will be 25 minutes maximum depending on the amount of students enrolled. Co- evaluation and self-assessment will be applied to this assignment which represents 30% of total grade.

Topic examples:

- Pollution
- Endangered Species
- Climate Change
- Case study of your interest [SEP]
- A "big" National topic, important at the moment and related to one or more topics discussed in class 🔛
- An interesting article related to one or more topics discussed in class [17]
- A new technology or knowledge applied to environmental and social practices in a sustainable way. [55]
- Field trip reports allow the student to apply the scientific method to structure their learning from practical experience. Each field trip has clear objectives given by the teacher, specific contents that will be covered and field techniques to be put into practice. The results of each field trip are both the specific results of the applied field techniques and the general learning accumulation of the experience itself. The field output report summarizes the activities covered during the outing, discusses the results of the techniques applied and compares the general observations with the theoretical content learned in the classroom, it is concluded from the observations and the obtained results and recommendations are made both at the application level of the visited sites and the didactic experience. A high level of analysis and bibliographical research is expected for the preparation of the reports. There are two Field Trip reports along the course, 10% each.
- Article Discussions allows us to learn new knowledge in the world around us, as it generates
 complex reactions and allows conclusions to be drawn from the phenomena being studied. This
 assignment is 10% of the grade.

General format for assignments

A specific rubric is provided for each assignment, for the students to 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 [F]
- Name, class, and date in header * [3]
- Align margins with page borders ** [SEP]
- Submit electronically to Canvas platform and sent to the professor to maumora@veritas.cr
- 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: 🔙

Field Trip Report #1: Biological Reserve Durika Mauricio Mora Sánchez - January 10th, 2019

- 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 and align margins with page borders by selecting the option that aligns the text with both margins:

For All Presentations: These aspects will always be taken into account for presentations:

- **Preparation and content**: topic relevance, knowledge assimilation, answers to classmates' and professor questions, and content deepness due to evident research.
- Organization and style: smoothness, independence from notes and devices, speaking sclarity, 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.
- **Personal opinion:** robust personal 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 particular presentation unless the absence or lack of assignment is properly justified.

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. All of these complement the suggested projects and provide the students with higher possibilities of knowledge own ship. 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.

The teacher will use didactic techniques such as construction short debates, brainstorming, drawing up of diagrams, questions, among others, for the execution of the sessions.

Learning evaluation

In order to make the course or program better competencies based 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.

RUBRIC	PERCENTAGE VALUE

Documentary Analysis:	40%
 Documentary: Sharkwater (Shark finning in Costa Rica) Documentary: GMO OMG (Genetic Modified Organisms Industry) Documentary: Chasing Coral (Coral Damage) Documentary: Before the Flood (Climate Change) *The titles and topics could vary 	
Individual Presentation: • Free topic (related to Environmental Impact and Social Development) • Written and oral presentation	30%
Field trip report (10% each)	20%
Article Discussion	10 %
Total	100%

Rubric to evaluate video or documentary analysis

Through **video or documentary analysis** each student can generate analysis and conclusions that help him to internalize the subjects of the course. This activity of seeing and listening to the audiovisuals is shown in a report. Amongst the topics to be analyzed with the support of audiovisual (documentaries) we can find: Shark Finning in Costa Rica, Genetic Modified Organisms Industry, Fracking, Climate Change, Illegal Trade of Species, Illegal Poaching, Deforestation and Endangered Species, Minimalism practices, etc. This assignment is 40% of the total grade (10% each)

Criteria	Excellent 4	Good 3	Average 2	Needs Improvement 1	Observations
Formal presentation requested (cover with the student's name and audiovisual reference)					
Introduction of at least two paragraphs that captures the main topics of the documentary					
Development of the report, with at least three key aspects of the documentary, explaining them in relationship with the topics discussed in class					
Minimum three conclusions or final considerations					
Presentation of the information with adequate writing and well-written words (spelling)					
Total		•			

Rubric for Individual presentation and report (Free topic)

The assignment consists of a research on any topic concerning Environmental Impact and Social

Development. Each student must prepare a presentation and a written report along the course, approved by the professor at least one week before presenting, and uploaded to Canvas at least the day before presenting. Presentations will be held last week/weeks of classes, depending on the amount of students enrolled. Presenting time plus questions and discussion will be 25 minutes maximum depending on the amount of students enrolled. Co- evaluation and self-assessment **could** be applied to this assignment which represents 30% of total grade.

Topic examples:

- Pollution
- Endangered Species
- Climate Change
- Case study of your interest [SEP]
- A "big" National topic, important at the moment and related to one or more topics discussed in class [SEP]
- An interesting article related to one or more topics discussed in class
- A new technology or knowledge applied to environmental and social practices in a sustainable way.

Indicator	Excellent 4 pts	Very good 3 pts	Sufficient 2 pts	Insufficient 1 pt	Observations
			·		
	Presen	tation			
Dominance on the topic is demonstrated when answering professor and peers' questions. The student used reliable scientific information to build the presentation.					
Analysis is evidenced in the presentation as a well-established relation between the contents approached in class and the researched information. The student provides clear conclusions.					
The student exposes a personal point of view about the topic, using robust foundations that reflect the research and understanding on the topic.					
There is balance between the amount of text and images in the presentation, the information is clear, the structure follows logic and organized sequence, and is aesthetic.					
The student speaks clearly following a logical sequence , is independent of written material and respects time limits.					

The information presented is in accordance with the standards requested for the assignment; it is complete and interesting, and founded in scientific reliable sources.						
The information is expressed fluently and clearly so it is easy to understand. The student provides robust arguments when answering questions and personal conclusions.						
There is balance between the amount of text and images in the presentation, the information is clear, the structure follows logic and organized sequence, and is aesthetic.						
Self-assessment aspects						
I dedicated time and effort to the assignment. I made my research in advance searched in multiple reliable sources of information I was responsible in the preparation of my project.						
I delivered my topic and specifications on time, and made the necessary consultations when I had doubts. I was open at all times to receive observations and indications in case of improvement opportunities.						
I chose the topic and prepared the presentation according to the indications for the assignment.						

I prepared a robust personal analysis using what learned in class and the information researched for the assignment.			
Total:			

	Written R	Report		
The report includes a header with the name of the university, the student, and the course, title of the project and a line that separates the header from the rest of the work. Even margins are used in all the body of the				
report. It's order and cleanliness. It has good spelling and punctuation.				
The bibliographic sources follow APA style in its latest version both within the text of the report and in the bibliography chapter. At least five bibliographical sources were consulted				
Report organization: A logic sequence of ideas is used and the structure is clear (introduction, body, closure, etc.) using bullets, titles and subtitles to organize the information and separate ideas.				

Rubric to evaluate field trips

This course includes two mandatory Field Trips. Lodging and main meals are covered by the course.

The mandatory field trips in this course <u>are not excursions</u>. Only students enrolled in this course may attend. Field work might include volunteer work that might be considered harsh or strenuous for students who have not done fieldwork before. Students must be on time for all field trip related activities including departure, return and scheduled meal times. Some of the national parks and reserves are in faraway areas of the country or places with difficult access so students who get motion sickness from long bus rides might be uncomfortable in these field trips. It is usual to perform volunteering activities to the Sustainability farms the

course visits and these farms can be in lowlands or highlands facing hot or cold weather.

Students must carry small notebooks (or phones) to write down anything they see or learn while in the field and what they think about it, especially things related to what has been or will be studied in class. Each person's notes will be unique, not only in that each person notices different things, but also interprets similar things differently. Notes will help students write the field trip report, which is a formal paper that mirrors the field trip experience and learning.

The field trips are intended to allow students to apply and analyze the concepts learned in class, as well as having a direct experience with the ecological interactions present in the country and learn from them actively. The field trips promote the assimilation, reflection and internalization of knowledge in students; sensitize them through observation and interaction. This process makes it possible to take responsibility for the facts, develop a critical attitude and put into practice the ability to make decisions during the process of learning to learn. Value 20% it is evaluated through the delivery of a report, using as instrument the following rubric:

Criteria	Excellent 4	Good 3	Average 2	Needs Improvement 1	Observations
The report includes a header with the name of the university, name of the student, name of the course, title of the work and a line that separates it from the rest of the work.					
Organization of research: body of work structured according to chapters, themes, bibliography. The work consists of: introduction, summary of activities, objectives (general and specific), methodology and materials of the applied field technique, results of applied field technique and other activities, discussion, conclusions, bibliography, annexes.					
The activity summary describes all the substantive activities carried out. The introduction includes the important ecological data of the site and describes its implications, provides a general idea of the content of the report.					
The objectives , general and specific, of the departure and activities of the application of field techniques. The methodology describes the procedure followed according to the field techniques applied and lists the materials used.					
The results include lists of species observed with scientific nomenclature and associated data of interest, both of the applied field technique and of the various activities carried out (observations, discussions, walks, etc.). The ordered data are presented in tables, charts and graphs according to their nature and following the APA format. The pertinent statistical analyzes are carried out.					
The results of the output activities are discussed, reflecting a high level of analysis in light of the theory covered in the course and by consulting the bibliography. Personal appraisals based on theory are presented.					
The conclusions are presented in the form of a list and include recommendations based on what was discussed in the discussion chapter.					

The bibliographic sources are in APA format in its latest version both within the text of the report and in the bibliography chapter. At least five bibliographical sources were consulted.			
It presents order and cleanliness. It has good spelling and punctuation.			
Participates during the trip activities outdoors and indoors, showing collaborative attitude, interest, and punctuality in all activities			
Respect other and the environment. Obeys site's and the course's regulations.			
Total	 		

Rubric to evaluate analysis of Article Topic Analysis

The exhibition of article topics is a space dedicated to promoting techniques of oral expression and research on current events in the field of ecology in the country or the region. In addition, it is a space to promote the discussion and expression of diverse points of view, analysis, criticism and possible applications for the management of sustainability. The idea is for each student to investigate a current event in the field of ecology that is ideally occurring in Costa Rica, or failing in Latin America, to orally present the event, its point of view and a generating question of the discussion and the analysis. The subject must be chosen by each student and sent to the teacher for approval one week prior to the exhibition, including the sources consulted. The value is 10% and is evaluated by the following rubric:

Criteria	Excellent 4	Good 3	Average 2	Needs Improvement	Observations
Preparation of the topic with at least 3 reliable and respectable sources of information in the medium (scientific journals, prestigious institutions, physical and digital newspapers, others)				1	
Relevance and topicality of the prepared topic, depth of personal analysis when it comes to presenting your point of view.					
Preparation of at least one generating question for the discussion.					
Moderation of the participants (gives the word to each person in order, allows for the expression of points of view, answers specific questions about the subject under investigation).					
Submission of the topic, consulted sources and generating question one week before the presentation.					

Total	

Schedule - subject to change

Week	Key competence	Content	Teaching strategies
1	Analyses the key concepts and components of natural history for Costa Rica.	Topic 1. Introduction to the natural history of Costa Rica	Course introduction and presentation of key concepts to understand the natural history of Costa Rica. The student will understand definitions, history, relevance.
			Professor's exposition.
2	Discusses and analyses the social development concepts	Topic 2 . Introduction to Social Development	Professor's exposition.
	using Costa Rica as an example		Brainstorming activity.
			Article Discussion

3	Discusses and	Topic 3. Introduction to	Professor's exposition.
4 e	analyses the environmental pollution	Environmental Pollution	1 Tolossor a exposition.

			<u> </u>
	concepts using Costa Rica as an example		Brainstorming activity.
			Film Analysis
			Article Discussion
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5 6	Discusses the status of the different industries	Topic 4. Development and environment in	Professor's exposition.
7	7 in Costa Rica and its environmental and	Brainstorming activity.	
	social effects		Film Analysis
			Article Discussion
8	Discusses the different organizations,	Topic 5. Environmental	Professor's exposition.
	certifications and strategies for environmental	management 🔛	Brainstorming activity.
	management in Costa Rica		Film Analysis
			Article Discussion
9	Discusses the different organizations,	Topic 6. Environmental legislation	Professor's exposition.
	certifications and strategies for environmental		Brainstorming activity.
	legislation in Costa Rica		Film Analysis
			Field Trip
			Article Discussion
10	Discusses the different organizations,	Topic 7. Ecological economy	Professor's exposition.
strate ecological	certifications and strategies for ecological economy in		Brainstorming activity.
	Costa Rica		Article Discussion

11	Analyzes complex Environmental Impact Scenarios considering the use and integration of alternative techniques and methods, research, analysis and interdisciplinary diagnosis.	Topic 8 . Environmental Impact Studies	Professor's exposition. Brainstorming activity. Article Discussion
12	Individual	Individual	Individual
	Presentations	Presentations	Presentations

General observations

The student must conform to the provisions of the Veritas "Reglamento de Régimen Estudiantil". The rulebook is available for downloading at http://autogestion.veritas.cr/