

**CENTER FOR INTERNATIONAL PROGRAMS & SUSTAINABILITY STUDIES**  
**COURSE NAME: Ecological Photography**  
**COURSE CODE: PHOT 2100**  
**TOTAL CONTACT HOURS: 60**  
**CREDITS 4**

### **Description**

The basic functions of a photographic camera are studied in the course, in order to have an efficient control when making a photographic shot in any scenario, emphasizing issues related to nature and ecology.

In addition, students explore the diverse ecosystems of Costa Rica, understanding their differences and the resources that make them unique. Terms related to the golden number and fractals are analyzed, basic geometry present in nature, and the importance of photography in the processes of environmental conservation as well as the documentation of the direct damages of development and consumerism over it.

This is an elective course, with a theoretical-practical approach and responds according to the professional profile to the following question:

**How to capture an image in a natural context which, in addition to documenting the beauty of nature and promoting the conservation of the environment, also manages to elicit an emotional reaction in the viewer?**

To answer this question, the following will be studied:

- Basic knowledge of the functions of the camera and fundamental concepts of photography (ISO, aperture, shutter speed, exposure control, depth of field, focal length, among others)
- Understanding of the basis of design and photographic composition
- Psychology of color and its uses in contemporary photography
- Ethical foundations of the image and photography
- Importance of photography in the processes of conservation and preservation of the environment.
- National Parks and conservation policies of Costa Rica.
- Technological innovation, Bioethics and Sustainability
- Update on the latest trends in photography
- Practical application of ecological photography in the Costa Rican context

Throughout the course the following skills will be promoted:

- Ability to properly use a semi-professional camera
- Ability to promote the correct and ethical use of photography
- Ability to observe and analyze the environment in greater detail
- Ability to analyze the impact of ecological photography on the processes of conservation of the world's natural heritage.

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

- Creative thinking
- Observe with depth
- Collateral thinking
- Communication intelligence
- Environmental awareness
- Interest in learning to learn

### Competencies, criteria and evidences

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

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

| Type of competencies   | Performance criteria (Sub-competencies)  | Evidence of performance  |
|--|--|--|
| <b>Disciplinary</b><br><br>Integrates the technical knowledge of the camera with the rules of composition and study of the subject in order to obtain an effective photograph. | Analyzes the balance behavior of camera settings in its Manual function.   | Practical exercises  |
|  | Discusses the work of both national and international photographers working on the subject of ecological photography and conservation. | Study of photographers<br>Investigation report                 |
|  | Promotes the review of ethical issues related to photography.  | Participatory workshop on ethics, bioethics and sustainability |
| <b>General</b>   |  |  |
| Integrates the knowledge, skills and attitudes necessary to learn continuously throughout life considering the effective development in the knowledge society.                 | Learn to learn   | Daily in-class photography practices                           |
| Develops the knowledge, skills and attitudes necessary to learn to communicate through photography   | Communicate disciplinary thoughts in iconic form.  | Thematic discussion record                                     |
| Integrates the knowledge, skills and attitudes necessary to learn the  | Team work and leadership   | Collaborative work record                                      |

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|---|---|--|
| techniques of teamwork and leadership   |   |  |
| Integrates the knowledge, skills and attitudes necessary to learn interpersonal communication techniques. | Connect well with others.<br>Manage and resolve conflicts. Negotiate knowing how to inspire confidence and empathy.<br>Speak responsibly<br>Listen in depth | Research Presentation<br>Participatory workshop on regulatory frameworks and their practical application |

## Contents:

### **Topic 1. Basic knowledge of the functions of the camera and fundamental concepts of photography**

- a) Brief history of photography and its impact
- b) Theoretical foundations of photography (ISO, aperture, shutter speed, exposure control, depth of field, focal length, among others)
- c) Practical examples of photography.

### **Topic 2. Understanding the basis of photographic composition**

- a) The theoretical and conceptual bases of composition
- b) Practical aspects of photographic composition

### **Topic 3. Psychology of color and its uses in contemporary photography**

- a) Implications of color in contemporary photography
- b) Conscious integration of color in photography as a compositional resource

### **Topic 4. Ethical foundations of the image and photography**

- a) Basic Fundamentals of Copyright in Photography
- b) Case studies that present ethical-photographic problems

### **Topic 5. Importance of photography in the processes of conservation and preservation of the environment.**

- a) Fundamentals of ecological photography, conservation photography, tourist photography and environmental portrait.
- b) Influence of photography on conservation processes worldwide

### **Topic 6. National Parks and conservation policies of Costa Rica.**

- a) Brief study of Costa Rica's conservation policies
- b) Analysis of the natural resources of the National Parks of Costa Rica.

### **Topic 7. Technological Innovation, Bioethics and Sustainability**

- a) Aspects related to photography and technological advances at the environmental level
- b) Study of bioethical aspects
- c) Implications of sustainability in the development of a country.

### **Topic 8. Update on the latest trends in photography**

- a) Implications of contemporary photography and its perspectives of technological advance

b) Uses of contemporary photography in other fields of knowledge such as medical and research photography, scientific photography, advertising photography, among others.

### **Topic 9. Practical application of ecological photography in the Costa Rican context**

a) Guided tours to practice ecological photography

#### **Methodology**

This course implements a methodology that integrates the manual functions of the camera with the analysis of the environment and ecosystems of Costa Rica, in a university context where it can be practiced freely within an ethical framework. The students manage to deepen methodologically in the correct way of taking photographs, through the technical and compositional study of the image.

The role of the teacher is to be a facilitator and counselor of the teaching and learning process, allowing the construction and self-regulation of learning by the students.

This methodology is supported epistemically in the learning model by comprehensive competences and promotes communication, research and exploration skills, through participatory workshops to solve problems and practical cases.

#### **Learning strategies**

The following learning strategies will be developed:

- The case study consists of providing a series of descriptions of a specific situation that may be real or hypothetical but constructed with characteristics analogous to those presented in reality for clear purposes, presented through written material, enabling participants to initially raise divergent problems that do not have a single solution, followed by generating solutions. The topics to be analyzed are: children's photography, commercial photography, ethical foundations of photography, use of images and publication of photographs on social networks.
- Research allows us to acquire new knowledge in the world around us, as it generates complex reactions and allows us to draw conclusions from the phenomena we study.
- The participative Workshops facilitate the learning process through the discussion and exposure of different points of view and different resources that integrate and complement the knowledge imparted in the course.
- Practices of each of the topics discussed and analyzed in class to reinforce learning and to solve possible doubts that arise during the process.

#### **Didactic resources**

Among the didactic resources that will be used in the course, the following are cited: Bibliographic resources that are available both in the library of the institution, and on the internet to carry out documentary research and multimedia equipment. The student must allow extra class time to do the final work and take advantage of the theoretical classes to attend the teaching orientations and clarify doubts. The University provides the facility of free access to the Internet and the use of computers. The student will be able to make use during the hours of independent work of the library of the institution, of the study rooms or of the computer labs, as well as of any other areas that he / she decides in the campus of the University, since it is equipped with free wireless Internet to use by all students, teachers and administrative staff.

## Assessment

Competency assessment is the process by which evidence is collected and a judgment or opinion is made, considering pre-established criteria to give feedback in order to improve the suitability of the course or program. The evaluation of the course must be coherent with the competences and the teaching methodology. For each item of evaluation there is a rubric, which, although it gives a score, is a quantitative and qualitative description of the student's performance. The rubrics include the performance criteria of the general and disciplinary competences.

| RUBRIC   | PERCENTAGE  |
|--|-------------|
| Resolution of ten practical exercises: (5% each)<br><ul style="list-style-type: none"> <li>• Drawing with light (slow shutter speed)</li> <li>• Freezing exercises (fast shutter speed)</li> <li>• Practice of composition rules</li> <li>• Macro Exercises</li> <li>• Street and cultural photography</li> <li>• Self-portrait vs. Selfie</li> <li>• Blind photography and animal pupils</li> <li>• Conceptual photography</li> <li>• Commercial and advertising photography</li> <li>• Photography and meditation</li> </ul> | <b>50%</b>  |
| Class work (5% each)<br><ul style="list-style-type: none"> <li>• Case study analysis – Workshops</li> </ul>  | <b>10%</b>  |
| Investigation: (10%)<br><ul style="list-style-type: none"> <li>• Identification and analysis of the work of a reference photographer related to cultural photography.</li> </ul>   | <b>10%</b>  |
| Final Photography Project.   | <b>30%</b>  |
| <b>TOTAL POINTS</b>  | <b>100%</b> |

### Rubric to assess the resolution of practical exercises

The case study method promotes in the students three basic aspects: knowledge management, reflective practice, and adaptation to changes. With knowledge management, students are expected to acquire the strategies and techniques that allow them to learn by themselves; this implies the awareness of the assimilation, reflection and internalization of knowledge so that, finally, it can value and deepen from a personal option. Ten practical exercises will be evaluated, each with a value of 5% for a total value of 50%. It is evaluated using the following rubric:

| EVALUATION | DESCRIPTION |
|------------|-------------|
|------------|-------------|

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| <b>EXCELLENT<br/>(100-90%)</b>                         | Approaches the photographic exercise efficiently, using the time necessary to get a suitable subject and to integrate both technical and compositional knowledge to obtain a photograph that meets the 3 basic points: adequate exposure, compositional resources and identification of a subject within the image. Also, good resolution of the image, correct exposure and adequate definition of the subject photographed. It presents an abstract thought and concept. Punctuality in the delivery of the exercises. |
| <b>NOTABLE<br/>(89%-80%)</b>                           | Approaches the photographic exercise efficiently, using the time necessary to get a suitable subject and to integrate both technical and compositional knowledge to obtain a photograph that meets at least 2 of the 3 basic points: adequate exposure, compositional resources and identification of a subject within the image. Also, good resolution of the image, correct exposure and adequate definition of the subject photographed.<br>Punctuality in the delivery of the exercises.                             |
| <b>GOOD<br/>(79%-70%)</b>                              | Approaches the photographic exercise integrating, in a basic way, both technical and compositional knowledge to obtain a photograph that complies with at least 1 of the 3 basic points: adequate exposure, compositional resources and identification of a subject within the image.<br>Poor photographic exposure. Poor resolution of the image.   |
| <b>INSUFFICIENT<br/>PERFORMANCE<br/>(69% or lower)</b> | Approaches the photographic exercise in a deficient way, without integrating both technical and compositional knowledge to obtain photography. Both the resolution of the image and the photographic exhibition are incorrect and do not present an abstract concept or thought behind the created image.  |

### Rubric to evaluate the investigation

The research project allows us to learn new knowledge in the world around us, as it generates complex reactions and allows us to draw conclusions from the phenomena we study. One research is valued, with a total value of 10%. It is evaluated using the following rubric:

| <b>Indicator</b>   | <b>Excellent<br/>(100-90%)</b> | <b>Very good<br/>(89%-90%)</b> | <b>Sufficient<br/>(79%-70%)</b> | <b>Insufficient<br/>(69% or<br/>lower)</b> |
|--|--------------------------------|--------------------------------|---------------------------------|--|
| <b>Parts of the investigation</b>  |                                |                                |                                 |  |
| The research includes a cover with the basic data and an executive summary                       |                                |                                |                                 |  |
| Organization of research: body of work structured according to chapters, themes, bibliography    |                                |                                |                                 |  |
| The investigation has a delimitation of the subject, a clear and precise approach to the problem |                                |                                |                                 |  |
| The theoretical framework of the research has information obtained                               |                                |                                |                                 |  |

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| from books, journals that support the project the last 5 years.  |  |  |  |  |
| The methodology is applied and the proposed sequence is observed throughout the development of the project |  |  |  |  |
| Relevant results, conclusions and recommendations  |  |  |  |  |
| Quality of work in general both in the conceptual and creative part for the design of the brand manual     |  |  |  |  |
| The bibliographic sources use APA format   |  |  |  |  |
| It presents order and cleanliness. It has good spelling and punctuation.                                   |  |  |  |  |

### Rubric to evaluate the participatory workshop

The participatory workshop is focused on the discussion of issues related to photography and sustainability from different points of view, integrating the knowledge offered in class. 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 10% It is evaluated by means of the following rubric:

| <b>Indicator</b>   | <b>Excellent<br/>(100-90%)</b> | <b>Very good<br/>(89%-80%)</b> | <b>Sufficient<br/>(79%-70%)</b> | <b>Insufficient<br/>(69% or lower)</b> |
|--|--------------------------------|--------------------------------|---------------------------------|--|
| New ideas have been explored   |                                |                                |                                 |  |
| The problem solved shows a higher level of thinking and is clear. The concept is easily understood and effective.                                      |                                |                                |                                 |  |
| For the solution of the problem all aspects of management are used and are followed and used appropriately.  |                                |                                |                                 |  |
| The presentation of the solution to the problem shows planning and realization.<br>There is mastery of concepts and these are transmitted effectively. |                                |                                |                                 |  |
| The solution to the problem is expressed with visual communication terminology, its presentation is fluid and professional                             |                                |                                |                                 |  |

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| The work was delivered in a timely manner   |  |  |  |  |
| The work team does it collaboratively and they show tolerance, conflict resolution and respect towards their partner. |  |  |  |  |
| Total   |  |  |  |  |

### Bibliography:

**Azoulay, P.** (1998). *The adventure of **photography**. 150 years of the photographic imagen.* Estados Unidos. [DVD.DOC.EU 0020]

**Evening, M.** (2009). *Adobe Photoshop **CS4** for Photographers. A Professional Image Editor's Guide to the Creative use of Photoshop for the Macintosh and PC.* United States: Focal Press. [IMF.W 0061]

**London, B.** (2002). *Photography (7<sup>a</sup> ed.).* Estados Unidos: Prentice Hall. [IMF.T 0055]

**McCollough, F.** (2008). *Complete Guide to High Dynamic Range Digital Photography.* United States: Lark Books. [IMF.W 0056]

**Varis, L.** (2001). *Digital **Photography** for Creative Professionals: From photo shoot to image output.* Estados Unidos: Rockport. [IMF.W 0002]

**Tarantino, C.** (2003). *Step by Step 004. Digital Photo Retouching.* Cambridge, England: ILEX

### Chronogram

| Week | Sub competencia   | Contend   | Teaching Strategy                             |
|------|---|---|---|
| 1    |   | Topic 1: Basic knowledge of the camera functions and core concepts for photography.   | Presentation of the course.<br>Topic analisis |
| 2    |   | Continuation topic 1: Basic knowledge of the functions of the photographic camera and fundamental concepts of photography   | Lecture<br>Practice Exercises                 |
| 3    | Analyze the behavior of the white balance setting, when used on Manual setting. | Continuation topic 1: A brief history of photography and its impact<br><br>Theoretical Fundamentals of Photography (ISO, aperture, shutter speed, exposure control, depth of field, focal length, etc.) | Lecture<br>Practice Exercises                 |

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|           |  | Practical examples of photography.  |   |
| <b>4</b>  |  | Topic 2. Understanding the basis of photographic composition  | Lecture<br>Practice Exercises   |
| <b>5</b>  |  | Continuation topic 2. The theoretical and conceptual basis of the composition<br><br>Practical aspects of photographic composition  | Lecture<br>Practice Exercises   |
| <b>6</b>  |  | Topic 3. Psychology of color and its uses in contemporary photography<br>implications of color in contemporary photography<br><br>Consenting color integration in photography as a compositional resource   | Lecture<br>Practice Exercises   |
| <b>7</b>  | Promotes the review of ethical issues related to photography.  | Topic 4. Ethical Fundamentals of Image and photography basic fundamentals of copyright in photography<br><br>Case studies presenting ethical-photographic problems  | Topic analysis<br><br>Participatory workshop about ethics, bioethics and sustainability.  |
| <b>8</b>  | Discuss the work of national and international photographers who work on the theme of ecological photography and conservation. | Topic 5. Importance of photography in the processes of conservation and preservation of the environment.  | Presentation and research paper<br><br>Identification of conservation processes where photography has played an important role. |
| <b>9</b>  |  | Continuation Topic 5. Fundamentals of ecological photography, conservation photography, tourist photography and environmental portrait.<br><br>Influence of photography on conservation processes worldwide | Presentation and research paper   |
| <b>10</b> |  | Topic 6. National parks and conservation policies of Costa Rica.  | Lectures<br>Topic analysis  |

|           |   |  |
|-----------|---|--|
|           | <p>A brief study of Costa Rica's conservation policies</p> <p>Analysis of the natural resources of Costa Rica's national parks.</p>   |  |
| <b>11</b> | <p>Topic 7. Technological innovation, bioethics and sustainability</p> <p>Aspects related to photography and technological advances at the environmental level</p> <p>Study of bioethical aspects implications of sustainability in the development of a country.</p> | <p>Lecture</p> <p>Participatory workshop about ethics, bioethics and sustainability.</p> |
| <b>12</b> | <p>Topic 8. Updating the latest trends in photography</p> <p>Implications of contemporary photography and its prospects for technological advancement</p>   | <p>Lectures</p> <p>Topic analysis</p>  |
| <b>13</b> | <p>Continuation Topic 8. Uses of contemporary photography in other fields of knowledge such as medical photography and research, scientific photography, advertising photography, among others.</p>   | <p>Lectures</p> <p>Topic analysis</p> <p>Practice Exercises</p>                          |
| <b>14</b> | <p>Topic 9. Practical application of ecological photography in the Costa Rican context</p> <p>Guided tours to practice ecological photography</p>   | <p>Practice Exercises</p>  |
| <b>15</b> | <p>Continuation Topic 9. Practical application of ecological photography in the Costa Rican context</p> <p>Guided tours to practice ecological photography</p>  | <p>Practice Exercises</p>  |

### **General Observation**

The student must follow all the requirements of the Veritas University's Reglamento de Régimen Estudiantil. Any questions please check the portal at the student autogestion, pressing the following link: <http://autogestion.veritas.cr/> and download it.