

SUSTAINABILITY

IE University

Professor: **MANUEL QUIRÓS GALDÓN**

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Academic year: 20-21

Degree course: SECOND

Semester: 2º

Category: COMPULSORY

Number of credits: 6.0

Language: English

PREREQUISITES

SUBJECT DESCRIPTION

Sustainability is imperative at the present in any discipline becoming day by day strategic whatever the business sector. Nowadays, designers, a profession handling materials, energy, water, people, waste, etc. putting on the market products and services, must take into account the repercussions of their design decisions. Sustainability is not always well understood from the perspective of the designer.

In this course we will see the basic scientific principles that operate the functioning of the operating conditions of the Earth, where we live and compare them with the way humans do. We must understand and be aware that the current linear model of thinking and design must inexorably move to another circular, as dictated by Nature, sustainable and regenerative by definition. Finally, it is well documented the origing from COVID with the biodiversity loss, so it is relevant to check what we can do for nature.

We will analyze the state of the planet, its connection with the design, to value it, to know to finally to change our mindsets. This subject also seeks to reach a higher degree of consciousness to design doing good. Design not only has to be good but also do good. At the end sustainability is also a design problem and decision making.

The subject also look for an increase of awareness since the daily decissions as a citizens, sometimes are are no easy to split and to handle. So, we'll check the organic market and other eco choices that colud be better designed in order to enhance the consumer decisions.

This 2020, IE University is taking position as a sustainable institution. We'll give some contribution for this new path.

OBJECTIVES AND SKILLS

Several basic objectives will be pursued during the program. As a future profesional, the student must know the current situation of the planet and its connection with the discipline of Design under an holistic eye. Companies, brands, governments, and society are day by day evolving towards an environmental and social responsibility in their decision making and policies. All this framework is being stablishing no doubtly thanks to the effort of the sustainable leadership of the European Union aligned with the Sustainable Development Goals by the United Nations. The acutal COVID and all the consecuences are also contributing some how.

We'll cover the connections of the design field with the different footprints: hydric, carbon, ecological, biodiversity and social together with the new emergent economies will be the basis of the matter. In the same way we'll analyse in first hand the organic market and its opportunities and additionally the success and importance of the sustainable certifications.

Finally during the last period of the season, the student will apply part of their knowledge acquired in a final project. The project is still open to be defined. Previous years, student covered aspects related to their own university ecosystem, the IEU Segovia campus. Team works using research, analysis, critical thinking, systemic vision and connection with the design sector will allow a broader vision towards the commitment of awareness and ethics. Knowledge acquired during the previous/current year must be applied.

So, the student through the program will obtain a real and strong understanding of the why's of sustainability and a practical easy research of the subject. Culture, consciousness, awareness and personal emotions from weekly study and reading will be also an important achievement. Changing in the personal attitude from different perspectives will be also encouraged to the students in order not only to be part of a global movement but also to make changes at early stages in the design scope.

Hopefully, some of the academic deliveries, could be included in the student's portafolio.

METHODOLOGY

Truly participating classes where teacher and students together will co-create contents through weekly basic research, applied studies and personal oral presentations (flipping class). With the assistance of essential readings, visualizing videos, daily news, local events, etc., we'll create debates and change minds towards sustainability.

Practical exercises related to subject contents will help us to a global understanding of the subject.

An online test to evaluate the basic understanding of the content will be taken.

Individual digital presentations, a test to evaluate a global comprehension and a final project in teams, will complete the basic Introduction to Sustainability in this academical year.

Due to IE regulations all the sessions will be simple (1:20 h).

Teaching methodology	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	13.33 %	20 hours
Discussions	6.67 %	10 hours
Exercises	33.33 %	50 hours
Group work	40.0 %	60 hours
Other individual studying	6.67 %	10 hours
TOTAL	100.0 %	150 hours

EVALUATION CRITERIA

The evaluation of this particular subject consists in 4 different ways where student will show a global understanding of the subject. The 4 different criteria (constant effort + individual comprehension + working in team in a particular challenge + active participation) will provide me a good and a fair sense of the basic culture, awareness and decision making in this important matter, the sustainability.

1. Week by week during the first period, everyone will design a culture about sustainability through personal research and application, readings, and everything they consider important to achieve. This part will be essential to develop a critical thinking about the actual global situation and the need for solutions.
2. Test where students will mark the answers in a *non memory evaluation* where systemic connections and design as well as consumption patterns will be tested.
3. Final Project. During the last part of the year, student in teaming will scan the actual state of sustainability of the IEU Campus in order to design freely alternatives to enhance the situation.
4. Active participation in class.

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Retake policy

Students failing the course in the first regular period will have to do a retake in July (except those not complying with the attendance rules, which are banned from this possibility). Dates and location of this period will be posted in advance and will not be changed. Please take this into consideration when planning your summer.

The maximum grade that a student may obtain in any type of retake will be 8 out of 10. The retakes will consist on a comprehensive exam. The grade will depend only on the performance in this exam (continuous evaluation over the semester will not be taken into account). This exam will be designed bearing in mind that the passing grade is 5 and the maximum grade that can be attained is 8.

Criteria	Percentage	Comments
Individual Presentation	30 %	
Intermediate Test	20 %	
Class Participation	20 %	
Final Project	30 %	

IP (30%): Presentations will be required week by week. Some of them will be done in pairs. Not all of them have the same grading *weight*.

IT (20%) : Basic test evaluating global comprehension and applicability of the culture gained.

GP (30%): Final project. Grading criteria will be explained clearly at time.

CP (20%): Active and motivating participation on class, debating and showing a positive attitude.

All the criteria will be explained in detail during the first session in class for a fulling understanding.

PROFESSOR BIO

Professor: **MANUEL QUIRÓS GALDÓN**

E-mail: mquiros@faculty.ie.edu

Manuel Quirós has been involved for the last 25 years working in areas related to nature, from academics, research, dissemination, implementation and development. After 10 years as a postdoctoral researcher at the Polytech University Madrid researching in endangered freshwater fish, he decides to explore non environmental education institutions to share the need to be aligned with Nature.

He was a member of the Sustainable staff at IED from more than 13 years, a private university pioneer in sustainable program in all the design divisions from fashion to product for first year, 3rd year and master students. His major programs in education are Education for Sustainability and also Biomimicry, a disruptive ways to design according to Nature. Both during the beginning of the XX century where truly innovative in design schools.

At IE he runs a pioneering Slow Fashion Lab <https://ieulabs.ie.edu/ieu-labs/slow-fashion-lab/> with private companies (Pepe Jeans, El Ganso, Hemper, Parafina, ...) where 20 students have the chance to work hand by hand with the brands. The Slow movement is strongly aligned with sustainability.

Every year from 2016 he travels with MSc students to the Colombian Amazonia to explore how design can enhance potentially the life quality of local indigenous communities, through social innovation projects, in collaboration with the government and Fundación Omacha.

In addition he is Founder of several non lucrative associations (Greensigns, Biomimicry Iberia, Planeta Biomimético España and Red 3I Biomimesis) disseminating the message to sustainability to numerous media (government, civil society, Radio, TV, publications, books, conferences ...). Author of the unique blog in spanish on biomimicry and he is a contributing editor of the award-winning journal Zygote Quarterly Journal.

He currently collaborates with companies for the implementation of biomimicry and in sustainable innovation like ArcelorMittal (global leader of steel production). Manuel is invited year by year to participate in forums, simposium, media, TV, newspapers... to discuss the non technological perspective to the new world. Last year for instance he was speaker in the ONU-Habitat conference invited by the País Vasco Government in Bilbao, Spain, or during the COP 25 in Madrid. He is also designing Superior Educational Programs in Bolivia or Colombia by governmental request.

Manuel teaches currently in several universities such as University of Navarra; Catedra de la Unesco de la Universidad del País Vasco; Robert H. Smith School of Business University of Maryland just to mention the more relevant ones.

He has a Degree in zoology from the Complutense University of Madrid; Master in Aquaculture from the University of Stirling, Scotland and PhD from the Polytechnic University of Madrid where he was contracted as a post-Doc programmes during a decade. He publishes several scientific papers every year, and his divulgating publications are day by day more relevant.

More info:

Biomimicry Consultant site | Blog : <http://natureinspireus.com>

MQ bio: <http://natureinspireus.com/sobre-manuel/m-q/>

Full CV: https://www.natureinspireus.com/wp-content/uploads/2020/09/cvMQweb_ago20.pdf

Wildlife-art: <http://www.manuelquiros.com>

Linkedin: <https://www.linkedin.com/in/mquiros-biomimicry/?originalSubdomain=es>

IE University: <https://www.ie.edu/university/about/faculty-stories/manuel-quiros/>

OTHER INFORMATION

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Available time out of classes: Mondays from 10-12 h.

Out of this time I'll can not be available.

