

CITYLAB MODULE

Project Team Meeting Buenos Aires 13-14-15 September 2017

UNIVERSIDAD TECNOLÓGICA DE PEREIRA

Name of the Citylab module: "Territory, water and sustainability"

Faculties: Faculty of Environmental Sciences and

Faculty of Mechanical Engineering".

Program: "Mechanical Engineering"

Level: "Undergraduate"

Modality: Elective course

Timing : Since January 2016 until June of 2018

Total number of students: 140 students

Number of students per group: 27 students

SDG goal: 11.a Support positive economic, social and environmental LINKS BETWEEN URBAN, PERI-URBAN AND RURAL AREAS by strengthening national and regional development planning.



General description of the module

<<Role of the students>> "We all are a collective of learning".

Through a dynamic and active participation, and interaction with stakeholders and professor, to analyze and understand the issues and conflicts associated with the territory, its relationship with water to visualize alternatives for sustainability.

The students are interested in environmental sustainability and willing to work interdisciplinary. With the aim of advancing towards self-learning, working as a team, writing academic documents and listening the stakeholders.

<< Relation with the existing curriculum >>: The module was integrated as an elective course in the Faculty of Mechanical Engineering program. Students from other Faculties are allowed to register in this course.

<< Multidisciplinary character of the module >> The module is offered to students of the Faculty of Environmental Sciences and the Faculty of Mechanical Engineering. It is conducted and supported by twelve (12) professors from different disciplines: Sanitary Engineering, Architecture, Geology, Sociology, Social Worker, Archeology, History and Mechanical Engineering.

World Café

<< Results of the world café organized >>: The UTP Campus-Team held weekly meetings to discuss about the PBL Methodology. During these meetings, there was exchange of experiences through workshops. The interdisciplinary work ability was improved. The module was designed interdisciplinary with the participation of the local stakeholders. Some of the professors of the UTP Campus-Team have expressed they are using the PBL in all their courses.

<< Barriers >>: The lack of autonomy of students in their learning process. The incorporation of the PBL for the students involved in the module could be not possible since they are ending their undergraduate studies. During the development of the module we have noticed that some professors is difficult to overcome the traditional models. The integration of the module in the bachelor in Environmental Management was suspended due to a curriculum reform that modified the location of the courses selected for the module.

<<New insights and how they were implemented in the module>>: Since the module is being offered by the Faculty of Mechanical Engineering as an elective course that guarantees the interdisciplinary work. It increases the possibility of interaction between professors and students of different disciplines around the analysis of problems of the territory. Thanks to the module the environmental education in the UTP is being offered to other academic programs other than the bachelor in Environmental Management.

Cross faculty collaboration

<<Barriers and success factors in the cross faculty collaboration>>: Currently the bachelor in mechanical engineering is under revision to perform a curriculum reform. It incorporates the discussion for the integration of the PBL as one of the multiple alternatives to conduct the courses. At the moment the UTP does not have the adequate infrastructure to effectively develop the PBL.

<<Recommendations to improve involvement of other faculties and implementation>>: The PBL initiative needs the institutional support which should be reflected in the Educational Project of the UTP. It is also necessary a greater diffusion of this particular experience in the UTP. Additionally, it is important to continue with PBL training activities for the professors interested in new pedagogical approaches.

<<How we enhance interdisciplinary and transdisciplinary competences>>: Through the participation of a interdisciplinary group of professors of the Faculty of Environmental Sciences and the Faculty of Mechanical Engineering. Since the beginning of the project have been involved local stakeholders in the design of the module. One of the local stakeholders is participating as a professor of the module.

Involvement of local stakeholders

Local stakeholders have collaborated since the beginning of the project in March 2016. For instance, representatives of the community aqueducts associations, the Dosquebradas urban curator, Lucero Giraldo and some officials of the Planning Secretary. The curator, Lucero Giraldo has participated in the module as a professor. It will be possible to expand the impact of the University through a formation course for the local actors. The objective of this course will be to strengthen the management capacities of the stakeholders to overcome the urban conflicts. There have been some difficulties such as the lack of trust of the local actors in the process conducted by the academy. However, their participation has increased gradually thanks to the implementation of field visits by professors and students of the module.

Students

<< How have students experienced the PBL methodology>>: The students involved in the project recognized the importance of increasing their commitment to apply the PBL methodology. They feel their role is more active in this kind learning model.