San Pablo Catholic University (UCSP)
Undergraduate Program in
Computer Science
SILABO

Universidad Católica San Pablo

CS402. Capstone Project I (Mandatory)

2021-II

1. General information		
1.1 School	:	Ciencia de la Computación
1.2 Course	:	CS402. Capstone Project I
1.3 Semester	:	8^{vo} Semestre.
1.4 Prerrequisites	:	CS401. Research Methodology in Computing. (7^{th} Sem)
1.5 Type of course	:	Mandatory
1.6 Learning modality	:	Virtual
1.7 Horas	:	2 HT; 2 HP;
1.8 Credits	:	3

2. Professors

Lecturer

- Graciela Lecireth Meza Lovón <gmezal@ucsp.edu.pe>
  - PhD in Ciencia de la Computación, Universidad Nacional San Agustín, Perú, 2016.
  - MSc in Ciencia de la Computación, UFMS-MS, Brasil, 2007.
- Juan Carlos Gutiérrez Cáceres <jcgutierrezc@ucsp.edu.pe>
  - PhD in Ciencia de la Computación, Universidad Nacional de San Agustín, Perú, 2013.
  - MSc in Ciencia de la Computación, ICMC-USP, Brasil, 2003.
- Manuel Loaiza Fernandez <meloaiza@ucsp.edu.pe>
  - PhD in Informatica, Pontificia Universidad Católica do Rio de Janeiro (PUC-RIO), Brasil, 2009.
  - MSc in Informatica, Pontificia Universidad Católica do Rio de Janeiro (PUC-RIO), Brasil, 2005.
- Rensso Victor Hugo Mora Colque <rvhmora@ucsp.edu.pe>
  - MSc in Ciencia de la Computación, Universidade Federal de Ouro Preto, Brasil, 2012.

3. Course foundation

This course aims to allow the student to carry out a study of the state of the art of a topic chosen by the student for his thesis.

4. Summary

1. Lifting the state of the art

5. Generales Goals

- That the student carries out an initial investigation in a specific subject realizing the study of the state of the art of the chosen subject.
- That the student shows mastery in the subject of the line of investigation chosen
- That the student choose a teacher who dominates the research chosen as an advisor.
- The deliverables of this course are:

  Avance parcial: Solid bibliography and progress of a Technical Reporto.

  Final: Technical Report with preliminary comparative experiments that demonstrate that the student already knows the existing techniques in the area of his project and choose a teacher who dominates the area of his project as an adviser of his project.

6. Contribution to Outcomes

This discipline contributes to the achievement of the following outcomes:

a) An ability to apply knowledge of mathematics, science. (**Usage**)

b) An ability to design and conduct experiments, as well as to analyze and interpret data. (**Assessment**)

c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. (**Usage**)

e) Understand correctly the professional, ethical, legal, security and social implications of the profession. (**Assessment**)

f) An ability to communicate effectively. (**Usage**)

h) A recognition of the need for, and an ability to engage in life-long learning. (**Usage**)

i) An ability to use the techniques, skills, and modern computing tools necessary for computing practice. (**Assessment**)

l) Develop principles research in the area of computing with levels of international competitiveness. (**Usage**)

7. Content

UNIT 1: Lifting the state of the art (60)	
Competences: e,h,i,l	
Content	**Generales Goals**
• Perform an in-depth study of the state of the art in a certain topic in the area of Computation. • Writing technical articles in computing.	• Make a bibliographical survey of the state of the art of the chosen subject (this probably means 1 or 2 chapters of theoretical framework in addition to the introduction that is chapter I of the thesis) [Usage] • Writing a latex document in paper format with higher quality than Project I (master tables, figures, equations, indices, bibtex, cross references, citations, pstricks) [Usage] • Try to make presentations using prosper [Usage] • Show basic experiments [Usage] • Choose an advisor who dominates the research area [Usage]
Readings: IEEE-Computer Society (2008), Association for Computing Machinery (2008), CiteSeer.IST (2008)	

8. Methodology

El profesor del curso presentará clases teóricas de los temas señalados en el programa propiciando la intervención de los alumnos.

El profesor del curso presentará demostraciones para fundamentar clases teóricas.

El profesor y los alumnos realizarán prácticas

Los alumnos deberán asistir a clase habiendo leído lo que el profesor va a presentar. De esta manera se facilitará la comprensión y los estudiantes estarán en mejores condiciones de hacer consultas en clase.

9. Assessment

Continuous Assessment 1 : 20 %

Partial Exam : 30 %

Continuous Assessment 2 : 20 %

Final exam : 30 %

References

Association for Computing Machinery (2008). *Digital Libray*. http://portal.acm.org/dl.cfm. Association for Computing Machinery.

CiteSeer.IST (2008). *Scientific Literature Digital Libray*. http://citeseer.ist.psu.edu. College of Information Sciences and Technology, Penn State University.

IEEE-Computer Society (2008). *Digital Libray*. http://www.computer.org/publications/dlib. IEEE-Computer Society.