Universidad Nacional de Colombia (UNAL) Sede Manizales
Undergraduate Program in Information Systems
SILABO

CS402. Capstone Project I (Mandatory)

2022-II

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

2. Professors

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:

1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. (**Assessment**)

2) Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. (**Usage**)

3) Communicate effectively in a variety of professional contexts. (**Usage**)

4) Recognize professional responsabilities and make informed judgments in computing practice based on legal and ethical principles. (**Assessment**)

5) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline. (**Usage**)

6) Apply computer science theory and software development fundamentals to produce computing-based solutions. (**Assessment**)

7) Develop computational technology for the well-being of all, contributing with human formation, scientific, technological and professional skills to solve social problems of our community. (**Usage**)

7. Content

UNIT 1: Lifting the state of the art (60)

Competences:

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.