Master in Information and Communications Science

Emphasis:

NAME OF THE SUBJECT: RESEARCH SEMINAR
- Obligatory (X): Basic (X) Complementary ( )
- Elective ( ): Intrinsic ( ) Extrinsic ( )

NUMBER OF ACADEMIC CREDITS: Four (4).

COURSE TYPE: THEORETICAL: _X_ PRACTICAL: ___ THEORETICAL-PRACTICAL: __
Methodological alternatives:
Master Class (), Seminar (X), Seminar - Workshop (), Workshop ( ), Practice (),
Tutored projects (), Other: _____

Justification

- The purpose of the research seminar is to support students in the construction of research proposal in the different specific areas of knowledge of each emphasis through the literature review,problem statement, problem formulation and research methods and methodologies in order to solve to solve each specific research problem.

- This seminar focuses on the design of research in Information and Communications Science. The components of the research proposal serve as the core components of the course. The seminar sessions pretend to answer the following questions: how to conceptualize research problems?, how to ask research questions?, how to identify the kinds of information necessary to answer those questions?, how to identify "the literature" relevant to the problem?, how to write the research objectives?, how to write a research hypothesis? and how to identify the kinds of methods in order to answer research questions?.

- The seminar will also teach students to write convincingly about all of these aspects of research design, analyzing the evaluation criteria and how proposals are reviewed. The final product for the course will be a completed research proposal in which all these elements are integrated in a sound logical framework. The seminar will be relevant to students preparing to present their research proposals scholarly or applied.

Objectives

GENERAL OBJECTIVE

- To contribute to the design, construction, adaptation and depth of research proposals of the Master's students

SPECIFIC OBJECTIVES

- To support the consolidation of research projects in order to obtain the necesary depth.
- To Contribute to the process of adapting the logic and structure of research proposal.
- To provide conceptual and theoretical support to research proposal.
- To orient students in order to identify the background review of research proposalr a los estudiantes en la identificación y revisión del estado del arte del tema de investigación

Competences

- **Cognitive:** To develop in students skills related to the processing of information, which allow argumentation, perception, resolution and understanding of problems, oriented to the design of the research proposal

- **Research:** In coherence with the objectives of the program, to develop in students critical thinking, which allow conceptualization, elaboration and foundation of a research proposal..

Course Topics

1. **INTRODUCTION**

    - RESEARCH MASTER
    - RESEARCH PROCESS, TYPES OF RESEARCH
    - SCIENTIFIC KNOWLEDGE
    - SCIENCE, SCIENCE CLASSIFICATION
    - SCIENTIFIC METHOD
    - RESEARCH SYSTEMS (COLCIENCIAS, GROUPS, PROJECTS)

2. **RESEARCH DESIGN**

2.1 THE OBJECT OF KNOWLEDGE

- SELECT A RESEARCH TOPIC
  - Direct Observation
  - Literature review
  - Consult experts
  - Topic definition
- THE RESEARCH PROBLEM
  - Problem Statement
  - Problem formulation
  - Problem sistematizacion
- OBJECTIVES
  - General Objective
  - Specific Objectives
- LITERATURE REVIEW
  - Background review
  - Theoretical Review
  - Conceptual Review
  - Spatial and temporal considerations
- RESEARCH HYPOTHESIS
  - Classification
  - Formulation
  - Structure
  - Requirements

2.2 METODOLOGICAL SUPPORT

- RESEARCH JUSTIFICATION
  - Practical Justification
  - Methodological Justification
  - Theoretical Justification
- METHODOLOGICAL TOPICS
  - Research Methods (observation, inductive, deductive, syntheses, analysis, etc..)
  - Data source, Data Collection Techniques
  - Tratamiento de información

3. MANAGEMENT SUPPORT

- SCHEDULE
- BUDGET
- REFERENCES

4. SUPPORT ELEMENTS

- READING AND WRITING SCIENTIFIC PAPERS
- SCIENTIFIC MAGAZINES
- SCIENTIFIC DATABASES
- JOURNAL CITATION REPORTS

- PAPERS(REVIEW, REFLECTION AND RESEARCH RESULTS)

Strategies

Didactic and Pedagogical:

- Analysis and reflection will be promoted as the central axis of the knowledge construction process.

- The ideas of the research proposal must be presented to be debated and questioned in the group by the other students and professors.

	Hours			Teacher hours / week	Student hours / week	Total Hours Student / semester	Academic credits
Type of course	DW	CW	AW	(DW + CW)	(DW + CW +AW)	X 18 weeks	
	24	24	144	4	12	192	4

Direct Presential Work (DW): classroom work in plenary session with all students.
Mediated-Cooperative Work (CW): Teacher tutoring work to small groups or individually to students.
Autonomous Work (AW): Student work without the presence of the teacher, which can be done in different instances: in work groups or individually, at home or in a library, laboratory, etc.)

Resources.

PHYSICAL RESOURCES REQUIRED:

- Classroom for discussion sessions.
- Virtual classroom with the course material.

BIBLIOGRAPHY

- Eduardo Méndez, Rodrigo Vélez Bedoya. Metodología Diseño y desarrollo del Proceso de investigación. McGraw-Hill, 1999.
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- Ángeles Caballero, César A. *La investigación monográfica.* 4a. ed. corr. y aum. Lima, Talleres Gráficos P.L. Villanueva S.A., 1967, 312 p.

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- Carreño H., Fernando. *La investigación bibliográfica.* México, Editorial Grijalbo, S.A., 1975, 61 p.
- Cohen, Morris. (2000), Introducción a la Lógica y al Método Científico, Amorrortu Editores, Argentina.
- Day, Robert A. *Cómo escribir y publicar trabajos científicos*. 3a. ed., 2a. reimp. Wáshington, Organización Panamericana de la Salud, 1990, 214 p.
- De la Torre Villar, Ernesto y Navarro de Anda, Ramiro. *Metodología de la investigación: bibliográfica, archivística y documental.* 1a. ed. México,Libros McGraw-Hill de México, S.A. de C.V., 1982, 298 p.
- Gómez Jara, Francisco y Pérez Ramírez, Nicolás. *El* diseño *de la* investigación documental*.* 5a. ed. México, Distribuciones Fontamara, 1984.
- Guerra Cruz, Guillermo G. *El trabajo monográfico:* manual *para la organización y* planificación *del estudio y de las* fuentes*.* 2a. ed. Trujillo, Universidad Na-cional de Trujillo, 1972, 89 p.
- Keithley, Edwin M. y Schreiner, Phillip J. *Manual para la elaboración de* tesis*, monografías e* informes*.* Cincinatti, South Western Publishing, 1980.
- Manzo, Abelardo J. *Manual para la preparación de monografías.* Buenos Aires, Ed. Humanitas, 1973, vii, 122 p.
- Rivas Galarreta, Enrique. *Metodología de la investigación bibliográfica.* 2a. ed. Trujillo, Universidad Privada Antenor Orrego, 1994, 148 p.
- Tenorio Bahena, Jorge. *Técnicas de investigación documental.* 3a. ed. México, McGraw-Hill, 1999.

WEB SITES

- https://www.nyu.edu/classes/bkg/methods/010072.pdf
- http://www.public.asu.edu/~kroel/www500/The%20Research%20Problem.pdf
- http://libguides.usc.edu/writingguide/introduction/researchproblem
- https://www.qualtrics.com/blog/research-problem/
- http://www.ceptara.com/blog/how-to-write-problem-statement
- http://www.udistrital.edu.co:8080/web/biblioteca/bases-de-datos1
- http://201.234.78.173:8084/publindex/
- http://www.youtube.com/watch?v=fD6BvZvDTE4
- http://www.youtube.com/watch?v=qAxSMzg0DSQ&feature=related
- http://es.slideshare.net/male2712/sabino-carlos-el-proceso-de-investigacion
- http://www.cun.edu.co/docentes/2_taller_pedagogia_CUN_2006A/modelos_de_formacion/3_estrategias_pedagogicas/3_2_Seminario%20Investigativa/32ELSE_1.DOC
- http://www.control-systems.net/recursos/i_mas_d/info/apuntes_metodologia_doc.pdf

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SYLLABUS

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Maestría en Ciencias de la
Información y las Comunicaciones

Course Schedule

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 INTRODUCTION	X	X														
RESEARCH PROCESS, TYPES OF RESEARCH	X															
SCIENTIFIC KNOWLEDGE	X															
SCIENCE, SCIENCE CLASSIFICATION		X														
SCIENTIFIC METHOD		X														
2 RESEARCH DESIGN				X	X	X	X	X	X	X	X	X				
2.1 THE OBJECT OF KNOWLEDGE				X	X	X										
SELECT A RESEARCH TOPIC				X												
THE RESEARCH PROBLEM				X	X											
OBJECTIVES					X	X										
LITERATURE REVIEW						X	X									
RESEARCH HYPOTHESIS							X	X								
2.2 METODOLOGICAL SUPPORT								X	X	X						
RESEARCH JUSTIFICATION									X	X						
METHODOLOGICAL TOPICS											X	X				
3 MANAGEMENT ELEMENTS													X			
SCHEDULE													X			
BUDGET													X			
REFERENCES													X			
4 SUPPORT ELEMENTS			X											X	X	X
READING AND WRITING SCIENTIFIC PAPERS														X	X	
SCIENTIFIC MAGAZINES			X													
SCIENTIFIC DATABASES			X													
JOURNAL CITATION REPORTS			X													
PAPERS(REVIEW, REFLECTION AND RESEARCH RESULTS)																X

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Evaluation

		TOPIC	Week	Percentage
FIRST		The research problem and objectives.	6	30%
SECOND		Literature review, Research justification, Hypothesis and Methodology	12	20%
THIRD		Reading papers	Every week	20%
FOURTH		Final research proposal	16	30%

TEACHER INFORMATION:

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