

# ACADEMIC LINKAGE PROJECT TO DEVELOP THE ALPHABETIZATION OF INFORMATION

## PRENATAL DEVELOPMENT

**Strategic objective it attends:** Form strategic alliances with students to promote information culture (III).

**Aptitude/Ability:** Learn to search and evaluate information.

**Matter and specific theme:** Psychological development. Prenatal development.

**Team involved:** Juan Chavez (Library); Adriana López (Psychology School).

### Topic content and inquiries.

The topic to address in this experience of search, locating and use of information, will be prenatal development. It will be structured in three dimensions:

- a) Physical development.
- b) Cognitive development.
- c) Psychosocial development.

Questions that will guide your work during the next hours will be:

- ¿What are the scientific advances to know if the prenatal growth and if development is normal?
- Mention the consequences of some environmental prenatal influences, from the mother and the father, and how these can be prevented or treated.  
¿What special problems are present during the prenatal development?
- ¿What has allowed different labor options to exist and how can they influence in the child's development? ¿Why does the labor (birth) cause stress to the newborn? ¿Is it ready to overcome this process?
- ¿What are some of the changes that the members of the family must make to accommodate the child? Describe some of the physical, psychological and social changes that influence on the mother to be during the pregnancy.
- ¿How can an early, additional contact favor the bond between the infants and their caretakers?
- Statistically, where is Mexico located in regards to birth rate, death in childbirth and the mother's age when they have their firstborn? ¿What causes these changes and what have the consequences been?

### Educational Activities

To respond the questions about prenatal development, a work program has been elaborated for four hours (presence required), in two sessions, and a few more for independent work (assignment). The first one will take place on Wednesday, February 9 and the second one on Monday, February 16. The activities will be coordinated by the librarian team.

## Session 1.

1. Plenary (full). Presents the purposes and the general description of the project. Questions are addressed and/or answered.
2. Comments about the assignment are requested (a reading about heredity and genetics in conception). Students are asked to propose five questions about the subject. The facilitator will compare them to the questions that appear in the inquiry section.
3. The group will arrange teams of five members and assign each of them a cubicle.
4. Activities in teamwork.
  - a. They will each have an hour and twenty minutes to collect the information related to prenatal development. The subthemes and questions will be used as guides to accomplish the task.
  - b. They must *locate and describe concepts, causes, consequences and preventive mechanisms of prenatal development* when performing an annotated bibliography from at least ten available sources of information, regardless if they're in English or Spanish, printed or digital.
  - c. The findings will be registered in a Word document, mentioning the reviewed materials for each of the subthemes, citing sources and establishing bibliographic references (APA system). See annex 1.
  - d. The teams will work on this exercise in an independent manner. They shouldn't exchange or cross-check information with other teams.
5. Plenary (full). Twenty minutes before the session ends, they will gather with the rest of the group to show their findings.
6. Homework. Each team must complete the missing information and start preparing an essay (10 pages maximum, on Word), with a topic of interest about prenatal development.

## Session 2.

1. Written instructions are handed out to each team.
2. Teamwork activities.
  - a. Based on the task (article) they pick a topic of interest about prenatal development.
  - b. Once a topic of interest has been identified, they must ensure the following information: in what year did those studies begin, in which countries have they been carried out, which are the types of relationships that are being investigated in prenatal development and how many magazines, portals, foundations, etc. are there that publish information related to the topic.
  - c. Finally, the teams will develop an essay that includes a proposal for reducing the problem (their topic of interest) in prenatal development from one area of society (teenagers, mothers, etc.)
  - d. See heading of written work(s) to assess the article (in Blackboard).

3. Plenary (full). Twenty minutes before the session ends, they will gather with the rest of the group to present the progress of the essay before the librarian's team and the teacher.

**PSYCHOLOGICAL DEVELOPMENT  
CRITERIA FOR “Annotated Bibliography” WORK**

*Objective:* the student, in a team, will make an annotated bibliography from 10 sources about the prenatal stage of human development.

<b>Necessary information:</b>	<b>Observed</b>	
	<b>Yes</b>	<b>No</b>
1. Diversity of format or structure (book, peer reviewed journal, e-book, blog, website, etc.).		
2. Offers professional information of author(s).		
3. Describes source content (brief summary).		
4. Formulates specific comments about the main use for the topic.		
5. Points out possible strengths and weaknesses (FODA).		
6. Evaluates the academic reliability or accuracy analyzing conclusions and literature quality.		
7. Concerning investigations, mentions en what year the studies started, in which country they took place and their main findings.		
8. Compares or contrasts with other cited sources.		

## ACADEMIC LINKING PROJECT TO DEVELOP THE ALPHABETIZATION OF INFORMATION

**Subject:** DE412 Theory of the State

**Teacher:** Alfredo Estrada Caravantes

**Strategic objective it attends:** Form strategic alliances with students to promote information culture (III).

**Aptitude/Ability:** Learn to search, order and evaluate information.

**Matter and specific theme:** History of the philosophical doctrines. Political Theory. Four books: The Prince by Niccolò Machiavelli; Leviathan by Thomas Hobbes; The Social Contract by Jean-Jacques Rousseau and The Spirit of the Laws by Montesquieu.

**Team involved:** Juan Chávez (Library); Alfredo Estrada (Law School).

### Topic content and inquiries.

The topic to address in this experience of search, locating and use of information, will be the analysis of classical thinkers of political theory. It will be structured in three dimensions::

- a) Content of each one of the texts.
- b) Profile and context in which each of the authors lived.
- c) Impact that the specific text has had in the development of the Theory of State.

Questions that must be answered at the moment of writing the essay about each author:

- ¿What is the biography profile of Niccolò Machiavelli, Thomas Hobbes, Jean-Jacques Rousseau and Charles-Louis de Secondat “Montesquieu”?
- ¿What were the political and social circumstances prevalent at the time that each of the authors wrote The Prince, Leviathan, The Social Contract & The Spirit of the Laws, respectively?
- ¿What were the predominant theories in Europe at the time in which each book was written?
- ¿What biographical factors influenced each of the authors to sustain their ideas in each of their books?

Name of the course	MA404 Probability
Description of the course	Review of basic axioms and fundamental models of probability for the analysis of random behavior of variables in engineering systems. The concept of expected value and its application in decision making.
Course objective	It's closely related with those subjects particular of the field where random treatment of processes is required.
Work unit	Unit 3
Learning outcome of the unit	The student: will identify the type of continuous random variable found in a problem and calculate probabilities according to the theoretical model. Develop search strategies, locate, synthesize and elaborate a technical report and communicate the results.
Subject to work on	Normal distribution <ul style="list-style-type: none"> <li>a) Central Limit Theorem.</li> <li>b) Concept of Normal Distribution or Z.</li> <li>c) Formula, standardization and use of tables.</li> <li>d) Usefulness of normal distribution and tables.</li> <li>e) Application examples.</li> </ul>
Material employed	No designated material
Students	21
Career	ENG, 4 <sup>th</sup> semester
Schedule	Tuesday April 26 & Wednesday 27, 2011 in the Training room (CRAI), 3 <sup>rd</sup> floor of the Community library.

Name of the course	Properties of Materials – Science and Engineering
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	of materials
Description of the course	Through this course the aim is to address in a basic way the two major areas in which the study of materials is divided into: Science and Engineering of materials. Its nature is theoretical-practical since it covers from the scientific theories that are the foundations of the properties of materials, to the practical part of the material engineering which visualizes the potential applications of the various materials.
Course objective	That the student learns and comprehends the scientific theories that relate the different structure levels of materials, with the observable properties in the same, in order to apply this knowledge in the selection of the suitable material given a specific application.
Work unit	III Perfect Crystal Structures & Crystal Imperfections
Learning outcome of the unit	Solve problems involving the calculation of dependent properties of the perfect crystalline structure, as well as explain the effects of crystalline imperfections in the properties of materials.
Subject to work on	Crystal Imperfections – Atomic Arrangement – <ul style="list-style-type: none"> <li>• Generalization</li> <li>• Types of defects <ul style="list-style-type: none"> <li>○ Definition, classification and illustrations of each type</li> </ul> </li> <li>• Properties of the materials due to the presence of defects <ul style="list-style-type: none"> <li>○ Properties that are modified or surge with each type of defect</li> <li>○ Mechanisms that are founded on said properties</li> </ul> </li> <li>• Potential applications</li> <li>• Conclusions</li> </ul>
Material employed	No designated material
Students	17
Career	ENG, 2 <sup>nd</sup> semester
Schedule	Thursday April 14 from 8:00am -10:00am, in the training room; Thursday April 28 from 8:00am – 10:00am, in the training room.

Name of the course	Scientific method
Description of the course	The subject matter has the intention to awaken a

	certain taste for research in the student. From the elements that they learned in high school, the intent is to form a common platform of information, so that the student can develop basic research processes on topics related to the job market of their career, with the understanding that this will allow them to identify that the importance of the subject will be their link with their professional business (career).
Course objective	The student will elaborate a career related investigation throughout the semester, while integrating basic concepts of the Scientific Method, in such a way that it develops de capacity for the necessary scientific research for all professionals.
Work unit	IV Data collection techniques
Learning outcome of the unit	Develop an ability to search for information and summarize to write a short academic essay.
Subject to work on	Ergonomics and productivity <ul style="list-style-type: none"> <li>• Backgrounds</li> <li>• Types</li> <li>• Characteristics</li> <li>• Advantages and disadvantages</li> <li>• Application</li> </ul>
Material employed	No designated material
Students	21
Career	ENG, 6 <sup>th</sup> semester
Schedule	Monday February 21 from 3:00pm – 5:00pm, in the training room; Monday February 28 from 3:00 – 5:00 pm, in the training room; Monday March 7 from 3:00pm – 4:00pm

Library Project

Project: Academy – Library Link



Name of the course	Visual Marketing (MK404 IV LAM)
Description of the course	This course addresses the issue of the Visual Marketing Gap, that is, the gap that appears between Marketing and Graphic Design in a project of visual communication. The lack of knowledge of the scope of each discipline often creates tension between the director of Marketing and Creative person(s) that develop(s) the design proposals. The student will be allowed to develop advertising projects and visual communication in the best way as well as reduce the tension that is generated in the professional environment in these disciplines.
Course objective	Elements of the Visual Marketing Gap are studied. During the semester various projects are developed to add to the course (Godin-6 presentations, Image Research, MakeOver flier, POP, <b>Names or Clowns</b> , PromoPlanner and the Promotion Manual. Seeking to reduce the Visual Marketing Gap.
Work unit	III. The importance of image
Learning outcome of the unit	Develop the skills of information search and synthesis to develop a Portfolio.
Subject to work on	Branding. <ul style="list-style-type: none"> <li>• Backgrounds</li> <li>• Types</li> <li>• Characteristics</li> <li>• Advantages and disadvantages</li> <li>• Application</li> </ul>
Material employed	No designated material
Students	6
Career	LAM, 4th semester
Schedule	Tuesday March 8 from 10:00am – 12:00pm, in the training room; Tuesday March 15 from 10am – 12:00pm, in the training room; Tuesday March 22 from 10:00am – 12:00pm.

**HEADING**

## ESSAY

### ACTIVITY

This activity consists in writing an essay which will be titled “The use of derivatives in Mexico for risk management of risks and for speculation”.

### LEARNING OUTCOME

This activity aims for students to research about the scope that there is in Mexico in regard to the knowledge and use of derivatives, and to compare and assess the implications for companies that use these products for risk management or exclusively for speculative means.

### CONTENT

First, to develop your essay you must review the class material regarding this subject, which is available in Blackboard.

Additionally, you must search for information that will support your essay from some of the following sources:

- 2 books
- 3 magazine (published on a regular schedule) articles (printed or electronic)
- 1 article from a peer reviewed journal
- 3 web pages
- 1 database

The essay must have the following:

- Cover (Institution’s name, logo, school, subject, name, registration number and deadline)
- Content: 3 to 4 pages (introduction, content, conclusions)
- References (by APA guidelines)
- Font: Times New Roman #12
- Space: 1.5 line
- No spelling errors
- The essay is a personal reflection about the indicated subject, using the marked readings and consulted texts as the basis for your analysis.
- This essay is an integrative work in which you must consider the related themes that you’ve analyzed.

**NOTE: THE ESSAY WILL BE CARRIED OUT BY 2-3 PERSON TEAMS**

## EVALUATION

Name of the course	II407 Models of Operations Research
Description of the course	OR being a basic tool of Industrial

	Engineers, this course intends that the student acquires an attitude of search for the best any time they have identified which is the satisfactory performance of a human activity system, and that said performance can be described in a quantitative manner through one or more performance measures.
Course objective	In order to achieve an adequate performance in this course the students need to possess a prior knowledge of the fundamentals of differential calculus and linear algebra. Specifically requires that students be able to solve problems of an independent variables' maximum and minimum; graphing inequations and systems of inequations, as well as solve linear systems of equations using the Gauss-Jordan method.
Work unit	Unit 1
Learning outcome of the unit	Documented research with text support, references from the course, and the internet on the OR techniques, particularly the ones about optimization.
Subject to work on	Successful cases in OR applications <ul style="list-style-type: none"> <li>a) Identify the society in which to conduct the search for success cases.</li> <li>b) Select 2 success cases that most attract your attention.</li> <li>c) Find the origins, philosophies or reasons for the company's being.</li> <li>d) Construct a comparison chart (previously shown), with the data from your (2) chosen success cases.</li> </ul>
Material employed	No designated material
Students	12
Career	VI semester of the Industrial Engineer Program
Schedule	Tuesday March 8 from 10:00am – 12:00pm, in the training room; Tuesday March 15 from 10am – 12:00pm, in the training room; Tuesday March 22 from 10:00am – 12:00pm.

Name of the course	Inheritance law
Description of the course	Identify the legal institutions that relate to

	the person in the field of Civil Law through the distinction between the subject of the law, natural persons and legal entities, and the analysis of the attributes that are their own, to know and appreciate the significance of the legal relations that arise in Family Law: kinship and food; matrimony; concubinage, divorce, paternity, legitimacy, Parens patriae, adoption, guardianship and inheritance law.
Course objective	The students will develop an investigation throughout the semester related to each of the topics contained in the Family Law and Inheritance Law, and in doing so integrating the basic concepts of scientific method, in such a way to develop skills for legal research, necessary for their profession.
Work unit	Unit X Introduction to Inheritance law
Learning outcome of the unit	Recognize and analyze the fundamental principles of inheritance law; the capacity and inability to inherit, as well as the (testamentary) executor, the controller and the other participating assistants in the process of <i>mortis causa</i> inheritance. Explain and analyze the content of the will, its interpretation, types and formalities, as well as the institution of the heir, the characteristics of the legacy and the effectiveness and ineffectiveness of wills and other related provisions.
Subject to work on	<ul style="list-style-type: none"> <li>• Fundamental principles of Inheritance Law.</li> <li>• Capacity and inability to inherit.</li> <li>• Testamentary executor, controller and other participating assistants in the process.</li> <li>• Different types of wills and their formalities.</li> <li>•</li> </ul>
Material employed	No designated material
Students	21
Career	LDE, 2 <sup>nd</sup> semester
Schedule	Thursday May 12 from 9:00am – 11:00am, in the training room; Thursday May 19 from 9:00am – 11:00am, in the training room.

Name of the course	MA413 Probability and Statistics
Description of the course	Statistics provides the essential tools for

	the gathering, treating and analyzing of relevant and necessary information, required in any decision-making process that seeks to be effective. With the current of support provided by computerized systems, Statistics has ceased to be a field for specialists only or for big budget companies.
Course objective	This course involves both theoretic and practical training and includes three basic areas: descriptive statistics and statistical inferences related by the probability theory.
Work unit	Unit 3
Learning outcome of the unit	Make inferences about different population parameters, using the Inferential Statistics estimating techniques.
Subject to work on	Counting methods <ul style="list-style-type: none"> <li>a) Definition or concept of the counting method</li> <li>b) Formula</li> <li>c) Applicable cases for each method</li> <li>d) Applied examples</li> </ul>
Material employed	No designated material
Students	15
Career	ENG Digital Graphic Design, 4 <sup>th</sup> semester
Schedule	Thursday March 24, Monday 28 & Thursday 31 in the training room (CRAI) 3 <sup>rd</sup> floor of the community library.