



UNIVERSIDAD DE MONTERREY

CATALOGUE

UNDERGRADUATE

Courses description

Art and Design Department

AA 1190 HUMAN FIGURE DRAWING

Practice a series of anatomic drawing exercises with which he will understand how the bones and the muscles, under the skin surface, modify the external configuration of the model and help create the shape and profile of the human body.

Requirement: AA 3000 Basic Drawing Credits: 6 Level: Basic

AA 1250 NATURAL DRAWING

Practical Workshop of Natural Drawing with the objective of having the student practice several drawing techniques having different objects as models.

Requirement: AA 3000 Basic Drawing Credits: 6 Level: Basic

AA 1370 ADVANCED DRAWING WITH MODEL

Practical workshop for Natural Drawing with the purpose of developing the perception of anthropometry through the practice of drawings having the human figure as model.

Requirement: AA 3000 Basic Drawing Credits: 6 Level: Intermediate

AA 1550 ART THEORY

Preparing the student for the theoretical discussion regarding the artistic manifestations from a contemporary stand point, as well as for the understanding of the cultural phenomenon that affect and modify the artistic production

1. Art vs. Artistic Phenomenon
2. From beauty to aesthetics of the grotesque.
3. Art as a show.

Requirement: None Credits: 6 Basic Level

AA 2715 GUIDED PROFESSIONAL PRACTICE LA

Applying in the work field the criteria, knowledge and responsibilities formed and acquired through the course of study.

Requirement: having completed 260 credits Credits: 6 Level: Advanced

AA 2910 FINAL EVALUATION PROGRAM LA

Being able to apply all the knowledge and abilities in the development of a final project.

Requirement: Studying the last semester of the degree

Credits: 12 Level: Advanced

AA 3000 BASIC DRAWING

Developing the perception of the shape through drawing exercises through different techniques. The student will acquire the skill of observation and representation of objects to build a visual vocabulary

Requirement: None Credits: 6 Level: Basic

AA 3005 GEOMETRY AND PERSPECTIVE

Training the student in the basic techniques of technical drawing and introducing the basic principles of the study of geometrical shapes in three dimensions and flat projections. To practice the representation of tri-dimensional space through projection and perspective methods

Requirement: None Credits: 6 Level: Basic

AA 3010 COLOR

Learning the dimensions of color and its physical, pictorial, subjective and objective characteristics.

Experimentation, exploration and application of the different color harmonies using different means, including the digital means.

Acquire skills in the use and application of color

Requirement: None Credits: 6 Level: Basic

AA 3015 COMPOSITION AND DESIGN 2D

Exploring the conventions of production in two dimensions and the principles of organization of the bi-dimensional space. Introducing the student in a broad range of materials and traditional and non-traditional methods. Application of 2 dimensions in the different disciplines.

Requirement: None Credits: 9 Level: Basic

AA 3020 COMPOSITION AND DESIGN 3D

Exploring the conventions of production in three dimensions. Learning how to build their ideas in the tri-dimensional space developing an understanding of the relationship between shape and space. Introducing the student in a broad range of materials and traditional and non-traditional methods. Application of the 3 dimensions in the different disciplines.

Requirement: AA3015 Composition and Design 2D Credits: 9 Level: Basic

AA 3025 INTRODUCTION TO PAINTING

Introducing the student in the basic principles and techniques of composition and plastic expression through painting.

Requirement: AA 3010 Color Credits: 6 Level: Basic

AA 3030 INTRODUCTION TO ENGRAVING

Introducing the student in the basic principles and techniques of composition and plastic expression through engraving

Requirement: AA 3010 Color Credits: 6 Level: Basic

AA 3035 INTRODUCTION TO SCULPTURE

Introducing the student in the basic principles and techniques of composition and plastic expression through different materials.

Requirement: AA 3020 Composition and Design 3D Credits: 6 Level: Basic

AA 3045 CULTURE AND CIVILIZATION

The student will learn and discuss the key social movements and ideological trends that make up the basis of the culture we are living and will explain it, as well as the relationship with other cultures that question it and make it dynamic.

1. The conformation of the modern state
2. Trade as openness, mix and domination
3. Industrialization and consumption

Requirement: None Credits: 6 Level: Basic

AA 3050 EUROPE AND THE CLASSICAL CULTURE

The course suggests a revision of the main historical-artistic events since the formation of the Greek culture until Renaissance.

Through observation and analysis of a broad repertoire of works, the students will make a reflection about the relevance of the “classical” concept as the foundation of the Western Culture.

Requirement: None Credits: 6 Level: Basic

AA 3055 THE CREATION OF THE MODERN

The course suggests a revision of the main historical-artistic events from the Baroque period to the Contemporary period.

Through observation and analysis of a broad repertoire of works, the student will reflect on the social, economical and political transformations that have influence on the artistic production and the art crisis, the formation of Avant-gardes and their importance nowadays.

Requirement: None Credits: 6 Basic Level

AA 3060 SYMBOLIZATION PROCESSES

Understanding and analyzing the importance that the symbolization process has in the different manifestations of culture (science, arts, religion..). The student will become familiar with the different analytical approaches that may help him understand the results of culture as different forms of symbolization of the values of a group, society or individual.

1. Adaptation as a production of symbols
2. Mythology and Star Wars
3. Individualization and portrait, the identity card, magazine front page and political propaganda

Requirement: None Credits: 6 Basic Level

AA 3065 COMMUNICATION AND CULTURE

The student will understand, through the analysis of different means for knowledge transmission, how these means not only serve as interpretation of reality, but also we conform its perception through them

1. Open Sesame: the here and now of Oral expression
2. Writing and plow as forms of settling
3. The book as an ideological weapon.

Requirement: AA 3050 Europe and the Classical Culture; AA 3055 The Creation of the Modern.

Credits: 6 Level: Intermediate

AA 3070 CULTURAL IMAGES IN MEXICO

Studying the way and processes through which the visual culture in our country has been created, serving also for the creation of regional and national identities.

1. El charro y la china poblana ¿qué tan mexicanos son?
2. Allá en el Rancho grande y el bucolismo mexicano
3. El norteño del D.F.

Requirement: Having completed 36 credits

Credits: 6 Level: Intermediate

AA 3075 WORKSHOP ON CULTURAL CRITICS

After visiting the main exhibitions in the city, discuss the cultural pages of the newspapers, specialized magazines, movies and other contemporary events in the city, the country and the world, initiating the students in critical writing related to cultural manifestations. Working with students with different strategies and ways of writing about the cultural phenomenon, as well as pointing out the minimum requirements for structure and knowledge that a text of this sort requires.

Requirement: Having completed 36 credits

Credits: 6 Level: Intermediate

AA 3080 IMAGE AND IDEOLOGY

The student will understand how, along history, the different artistic manifestations have served to materialize different ideologies that govern the future of society. The different processes in which the creation of images is related with propaganda and power will be analyzed.

1. The likings of the age as ideology
2. From the hero to sacrificed savior: the individual as representation of social ideals
3. Advertising and prestige.

Requirement: Having completed 36 credits. Credits: 6 Level: Intermediate

AA 3085 ART AND TECHNOLOGY

The relationship that has existed in different ages on the art forms will be analyzed. The relationship that exists in both ways between art and technology will be studied and analyzed, which has helped in the formal conforming of art language (in different ages) as in the determination of our perception of reality.

Requirement: Having completed 36 credits. Credits: 6 Level: Intermediate

AA 3090 CONTEMPORARY CULTURE AND DISCOURSE

The importance that speech has taken as builder of the senses, in interpretation of the contemporary world will be reviewed. The texts from different disciplines will be studied and discussed (history, philosophy, art, science) which have not only set the essential theoretical guidelines for language conformation that supports nowadays the study of current culture, but the importance of speech in the reconfirmation itself of the disciplines.

1. Crisis of the great narration
2. Post-structuralism
3. The linguistic turn

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3095 CULTURAL PATRIMONY

The course suggests researching the relationship of cultural patrimony with the public and private institutions, cities and the territory and citizens' sensibility for its preservation and valuing. Revision of the national and international standards regarding preservation, its organization, and the development of the cultural activities.

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3100 REVIEW OF HISTORIC FOREFRONT

The course has the objective of learning the main problems of modern art, leaving a broad space for reflection about the origin and development of the artistic movements of the first five decades of the XX Century. A selection off works and theoretical and critical documents shall be the guideline to clarify the sources and traditions of modern art, while shoeing that they root in our current culture and mass media.

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3105 HIGH & LOW

The course suggests an interdisciplinary reflection about the different kinds of artistic production. There will be readings in the different mass communication media establishing the relationship between the elite culture and popular culture, trying to recognize, through the readings and practical exercises, how the artistic patterns mix in the infinite universe of images and objects that surround us, including those that have only commercial purposes.

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3110 ART AND COMMUNICATION

The relationship, enrichment and hybrids happening between the theories and communication will be analyzed and the forms of art. The students will analyze and discuss the impact that has existed on the production and interpretation of art, the communication model and its theories after the second half of the XX Century.

1. Art and information networks
2. Art and language
3. The editorial space as support for art

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3115 CULTURAL GLOBALIZATION SYMPTOMS

Analyzing and questioning in which way the cultural phenomenon are a reflection of changes caused by globalization and serve for a better understanding.

1. How were the cultural differences erased
2. Cultural manifestations and consumer community
3. Cultural space and civil society
4. The city as a weaving of symbolic speeches
5. Privatization of public spaces

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3120 SEMINAR ON THE CULTURAL PROPERTIES OF THE CHURCH

The students will learn through practical experiences, how to face problems with preservation and promotion of the church goods in the environment. Likewise the course has the objective of giving the students a general preparation regarding the different historical and iconographical meaning of the Christian art. The content is thought to be integrated with the specific courses dealing with the Course on Sacred Art offered at UDEM.

Requirement: Having completed 36 credits Credits: 6 Level: Intermediate

AA 3125 MULTICULTURAL AND GENDER STUDIES

Introducing the student to new approaches that are applied in the understanding, analysis and study of the artistic manifestations and cultural, emphasizing in the criticism made to the traditional models from a multidisciplinary perspective.

1. The cultural studies
2. Gender and culture.
3. Post-colonialism

Requirement: Having completed 72 credits Credits: 6 Level: Advanced

AA 3135 ART, IMAGES AND CULTURE IN THE AMERICAS

Some canonical images from America shall be reviewed (art, advertising, movies, printed media), from the arrival of different colonizers and conquerors up to the current moment, and study and analyze in which manner they have and impact culture in America, both in its interior as well as in the exterior.

1. America is still an icon for the rest of the world
2. Culmination and drop of the Cuban image
3. El cinetismo Latinoamericano y su “olvido” por parte de la historia del arte tradicional

Requirement: Having completed 72 credits Credits: 6 Level: Advanced

AA 3140 CULTURAL INDUSTRIES

The operation of the Cultural Industries will be analyzed as well as the role they play in the economy of the States and in the conformation of identities.

1. Reproductivity and cultural production
2. Mass communication and the show industry
3. Tourism and other cultural patrimonies

Requirement: Having completed 72 credits Credits: 6 Level: Advanced

AA 3145 CURATORSHIP AND LEGITIMATE DISCOURSE

The role of discourse in art legitimation will be analyzed. The nature and origin of the different legitimating discourses of the artistic productions will be studied, as well as the procedures in which these adapt the senses in the different ways of distribution and valuing of art.

1. End of the categories and cultural negotiation
2. Fairs and exhibitions
3. Institutionalization of the alternative

Requirement: Having completed 72 credits Credits: 6 Level: Advanced

AA 3150 MARKET AND COLLECTIONS

The course will talk about the fundamental mechanisms that move the market and art collections: from the creation of the art work, the relationship with the Gallery owner, the role of the museums, the auction houses, the samples, fairs, influence of the media, the audience, purchasers, etc.

The student will become familiar with the subject through personal experiences.

Requirement: Having completed 72 credits Credits: 6 Level: Advanced

AA 3155 INTRODUCTION TO ART IN VIDEO

Video as a means of artistic expression; the students will develop knowledge of what involves the creation of the video images, its process and its technology. Strategies in the use of video as an artistic method.

Requirement: None Credits: 3 Level: Basic

AA 3160 INTERMEDIATE PAINTING WORKSHOP

The student will continue with the theories introduced in Introduction to Painting, will study and master the Composition and Design problems by means of exploring personal expression.

Requirement: AA 3025 Introduction to Painting Credits: 9 Level: Intermediate

AA 3165 INTERMEDIATE ENGRAVING WORKSHOP

The course attempts to make the student learn the procedures for engraving and develop the pertinent skills to practice graphics.

Requirement: AA 3030 Introduction to Engraving

Credits: 9 Level: Intermediate

AA 3170 INTERMEDIATE SCULPTURE WORKSHOP

The student will learn and understand the characteristics of design, elaboration, mounting and recording works in petrous materials.

Requirement: AA 3035 Introduction to Sculpture

Credits: 9 Level: Intermediate

AA 3175 ADVANCED ENGRAVING WORKSHOP

Providing the student a theoretical reference framework and a technical support appropriate to develop significant plastic projects. The student shall be able to practice means and techniques of graphics learned as well as incorporate new procedures.

Requirement: AA 3165 Intermediate Engraving Workshop

Credits: 6 Level: Advanced

AA 3180 ADVANCED PAINTING AND DRAWING WORKSHOP

The student will reaffirm its plastic proposition justified in theories and contemporary concepts,. The student will continue and analyze in-depth the exploration of his personal expression started in the Intermediate Painting Workshop.

Requirement: AA 3160 Intermediate Painting Workshop

Credits: 6 Level: Advanced

AA 3185 ADVANCED SCULPTURE WORKSHOP

Providing the student a theoretical reference framework and technical support appropriate to develop significant three dimension projects. The student shall be able to practice means and techniques of the sculpture learned, as well as incorporating new procedures.

Requirement: AA 3170 Intermediate Sculpture Workshop

Credits: 6 Level: Advanced

AA 3195 SPACE AND PERCEPTION

Learning and analyzing the elements that comprise and interact with the interior spaces to interpret the users' behavior and conduct and, based on them, suggest design solutions.

Requirement: None Credits: 6 Level: Basic

AA 3200 MUSEUM AND GALLERY GUIDELINES

Learning the characteristics and guidelines in the museographic spaces and galleries to be considered in the propositions for spatial organization in agreement with museographic scripts and mounting.

Requirement: None Credits: 6 Level: Advanced

AA 3205 TEMPORARY INSTALLATIONS

Learning the materials and techniques available to use in the elaboration of Temporary Installations, such as windows, displays and temporary installations among others.

Requirement: AA 3260 Museum and Gallery Guidelines

Credits: 6 Level: Advanced

AA 3210 NATIONAL TOURISM PATRIMONY

Presenting the students the main alternatives for preservation and valuing of the national cultural patrimony; understanding the characteristics for the administration and financing of sites for equipment, installation and preservation of tourism patrimony.

Requirement: None Credits: 6 Level: Basic

AA 3215 INTERNATIONAL TOURISM PATRIMONY

Presenting the students the main alternatives for preservation and valuing of the international cultural patrimony; understanding the characteristics for the administration and financing of sites for equipment, installation and preservation of tourism patrimony.
Requirement: None Credits: 6 Level: Advanced

AA 3220 RESEARCH AND ART PROTOCOLS

The student shall develop a project observing the protocols of investigation in Art being the result the preamble of the Degree Project. The course is linked with the Final Evaluation Program AA 2910 where the proposition will be carried out.

Requirement: Having completed 260 credits

Credits: 6 Advanced Level Knowledge area: Visual Analysis

Business Department

AD 1111 INTRODUCTION TO BUSINESS

Understanding the fundamentals of the business and their social responsibility in a global context, as well as learning the nature of the business, through the subjects related with modern business.

Requirement: None

Credits: 6 Level: Basic

Knowledge Area: Management

AD 1211 ADMINISTRATIVE FOUNDATIONS

Identifying the administrative functions, from the perspective of the new organizational trends.

Requirement: None

Credits: 6 Level: Basic

Knowledge Area: Management

AD 1291 QUANTITATIVE METHODS FOR DECISION MAKING IN BUSINESS

Describing the models and the application of quantitative methods for the solution of real problems in organizations.

Requirement: IN 3400 Linear Programming Applied to Management

Credits: 6 Level: Intermediate

Knowledge Area: Management

AD 1311 HUMAN CAPITAL ADMINISTRATION

Obtaining a general overview of the operations in the Human Resources department, identifying the functions, activities and contributions that impact human capital in the organization.

Requirement: AD 1211 Administrative Foundations o AD 1111 Introduction to Business

Credits: 6 Level: Basic

Knowledge Area: Human Resources and Organizational Change

AD 1320 MARKETING

Learning the elements and factors that impact in the development of a Marketing strategy.

Requirement: Having completed 36 credits

Credits: 6 Level: Basic Knowledge Area: Marketing

AD 1330 ADMINISTRATION OF NEW AND SMALL ENTERPRISES

Understanding the importance of the new, small and medium size companies in the economic development, as well as their characteristics and administrative problems.

Requirement: AD1211 Administrative Foundations o AD1111 Introduction to Business

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1351 COMPETITIVE STRATEGY

Identifying analytical tools to study the competitive environment of the company, as well as the quantification of resources and competencies for the industry analysis.

Requirements: AD 1320 Marketing, CO 1050 Introduction to Finance, EC 1010 Micro economy, EC 1030 Macro economics, in substitution of EC 1010 y EC 1030, EC 1040 Introduction to Economics is accepted.

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1352 STRATEGIC MANAGEMENT

Understanding the concepts, methodologies and techniques for the design and implementation of the business strategies in the companies.

Requirement: AD 1351 Competitive Strategy

Credits: 6 Level: Advanced Knowledge Area: Management

AD 1361 LEADERSHIP AND ORGANIZATIONAL CHANGE

Learning the different concepts and theories, as well as the development of leadership skills; besides, detecting the leader role in the creation and institutionalization of an Organizational Change process.

Requirement: Having completed 144 credits

Credits: 6 Level: Intermediate
Knowledge Area: Human Resources and Organizational Change

AD 1362 ORGANIZATIONAL LEADERSHIP

Achieving an understanding and appreciation of the roles, strategies, policies, rules and reward systems as influence and support for the organizational leaders.

Requirement: AD 1361 Leadership and Organizational Change

Credits: 6 Level: Intermediate
Knowledge Area: Human Resources and Organizational Change

AD 1363 BUSINESS CONSULTING

Making the student familiar with the consulting process, both internal and external, providing him the knowledge of the methods mainly used by the professionals in the area.

Requirement: Having completed 144 credits

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 1410 SALES MANAGEMENT

Developing skills that enable understanding the organizational structure and the role of the sales manager in the Marketing strategy of the company; including market analysis, selection, hiring and sales personnel motivation, establishing territories and sales quotas, demand forecasting, compensation and allocation of sales activities.

Requirement: AD 1412 Sales Strategies and Negotiation Techniques

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1411 RETAILING

Achieving an understanding and appreciation for retail sales, to develop strategies that support retailers in obtaining competitive advantages and growth opportunities, in their relationship with the consumption market.

Requirement: AD 1410 Sales Management

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1412 SALES STRATEGY AND NEGOTIATION TECHNIQUES

Learning the basic activities of the sales force; how to work with the client, the importance of service, relationship Marketing and techniques involved in achieving the sales objectives.

Requirement: AD 1320 Marketing

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1451 ORGANIZATION AND ORGANIZATIONAL DESIGN

Explaining the models of the organizational theory in the changing environment of the real world, to understand the operation of the parts of the organization as well as the whole; focusing in handling of organizational Behavior, in small as well as large global organizations.

Requirements: AD 1211 Administration Fundamentals o AD 1111 Introduction to Organizations and Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge Area: Management

AD 1511 ORGANIZATIONAL BEHAVIOR

Understanding the basic tools and techniques for Human Capital Management, that may help the manager in improving and optimizing the results of its work team.

Requirement: AD 1311 Human Capital Administration

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 1521 SALES PROMOTION ADMINISTRATION

Identifying the necessary tools and techniques to enhance sales in the consumption markets, retail and industrial.

Requirement: AD 1320 Marketing

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1550 DISTRIBUTION CHANNELS

Describing the structure, competition and administration of the Distribution Channels; as well as mastering its design and evaluation.

Requirement: AD 1320 Marketing

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1610 MARKET STRATEGIC PLANNING

Identifying the different models used in Marketing decisions that support in the development and maintenance of the competitive advantages of a company.

Requirement: AD 1351 Competitive Strategies y Having completed 180 credits

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 1611 PLANNING AND DIRECTION FOR INTERNATIONAL MARKETING

Analyzing the specific subjects in the international markets and Marketing operations at an international scale; concentrating in problems such as identification and evaluation of opportunities around the world, development and acquisition of strategies for the specific needs of a market and detect and coordinate the strategies for a global market.

Requirements: AD 2410 International Marketing y AD 1610 Marketing Strategic

Planning Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 1630 INTERNATIONAL BUSINESS PLAN

Identifying and exploring the basis, elaboration and application of a plan for the development and operation of a strategy in international businesses.

Requirement: AD 1351 Competitive Strategy y Having completed 144 credits

Credits: 6 Level: Advanced

Knowledge Area: Management

AD 1631 INTERNATIONAL NEGOTIATION MODELS

Learning the models, techniques and tools necessary to develop skills that enable an effective negotiation in the international context.

Requirement: EC 1340 International Business Environment o AD 1630 International Business Plan

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1632 BUSINESS INTELLIGENCE

Defining the tools and techniques for the systemic gathering, synthesis and analysis of information of the environment where the organization is, so they may act as a corporate strength in decision making.

Requirement: AD 1351 Competitive Strategies y Having completed 144 credits

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1633 SEMINAR ON INTERNATIONAL NEGOTIATIONS

Integrate the knowledge acquired in the development of negotiation strategies for the development of international Projects.

Requirement: AD 1630 International Business Plan

Credits: 6 Level: Advanced Knowledge Area: Management

AD 1640 BUSINESS OPPORTUNITIES FOR ENTREPRENEURS

Identifying the key factors to visualize, define, test and explore a business opportunity through the integral use of interdisciplinary tool.

Requirement: Having completed 108 credits

Credits: 6 Level: Intermediate Knowledge Area: Management

AD1641 DEVELOPMENT OF INDEPENDENT PROFESSIONALS

Determine the key factors to visualize, define, test and explore an opportunity in the market for the creation of a firm, consulting organization through the integral use of interdisciplinary.

Requirement: Having completed 144 credits

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1660 FAMILY BUSINESS MANAGEMENT

Learning the individual implications in managing a family enterprise, identifying its contribution in the economic Development of our country and evaluating the essential factors to achieve its permanence in the long term.

Requirement: AD 1211 Administrative Foundations o AD 1111 Introduction to Business

Credits: 6 Level: Intermediate Knowledge Area: Management

AD 1670 MARKETING FOR ENTREPRENEURS

Applying the Marketing elements, techniques and tools in the context of development, planning and operations of an enterprise .

Requirement: AD 1640 Business Opportunities for Entrepreneurs

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 1721 LAUNCHING OF NEW BUSINESSES

Applying the concepts learned in regards to the entrepreneurial process in the implementation of a business plan, for the initiation of operations of a new enterprise.

Requirement: CO 3350 PYMES Financing Sources

Credits: 6 Level: Advanced Knowledge Area: Management

AD 1820 MARKET RESEARCH

Understanding and applying the Market Research process carrying out the research of a company. Training the student in the use of the SPSS statistical package for data analysis.

Requirements: AD 1320 Marketing y FM 1180 Statistics and its Interpretation

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2111 DIRECTION AND ORGANIZATIONAL CONTROL

Defining the instruments that enable influencing the people so they contribute to the goals of the organization. Likewise, applying tools that are useful in measuring the achievement of the goals in the organization.

Requirement: AD 1451 Organization and Organizational Design

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2112 NEGOTIATIONS

Learning and developing skills that allow applying the theories and techniques in the negotiation processes, to achieve successful negotiations that allow solving conflicts in an ethical manner.

Requirement: AD 1351 Competitive Strategy

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2113 INFORMATION SYSTEMS FOR BUSINESS MANAGEMENT

Distinguish the types of information, its use in decision making and its development and distribution among the different information systems of the company.

Requirement: CO 3300 Administration and Financial Analysis y CO 2350 Financial Management o SC 1340 Software Development Focused to Objects.

Credits: 6 Level: Advanced Knowledge Area: Management.

AD 2120 FRANCHISE DEVELOPMENT

Studying the development of business franchises, introducing their historical background, the conceptual and legal frame, as well as its operating dynamics; in the national and international environment.

Requirement: AD 1721 Launching of New Businesses

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2211 COMPENSATION MANAGEMENT

Use of methodologies and techniques to design and manage a compensation program that is fair, effective and competitive, based on organizational strategies.

Requirement: AD 1311 Human Capital Administration

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 2410 INTERNATIONAL MARKETING

Understanding the topics related with Marketing Management in a global market environment as well as the factors that impact in the International Marketing decisions.

Requirement: EC 1340 International Business Atmosphere y having completed 144 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2411 SERVICE MARKETING

Learning, with an integrated approach, and within an administrative context and focused to customer satisfaction, the different conceptual structures and analytical procedures that help in facing the challenges faced in the organizations in the service sector; as well as planning and implementation of marketing strategies appropriate for this kind of organizations, and the use of technology to facilitate the creation and delivery of services in a global market.

Requirements: AD 1320 Marketing y Having completed 144 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2412 INDUSTRIAL MARKETING

Understanding the process for the creation and delivery of value in the target markets, their dimension and processes, in order to make them into appropriate Marketing programs and strategies, compared with the ones utilized in the consumption markets.

Requirements: AD 1320 Marketing y Having completed 216 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2413 BRAND STRATEGIES

Learning the brand concepts, brand equity and brand strategic management, as well as the appropriate theories and tools to support decision making for Marketing; designing and implementing programs and activities to build, measure and manage brand equity, besides the concepts and techniques that help improve the long term yield of the brand in consumption markets and of the business, for goods as well as for services.

Requirement: AD 2414 Brand Management

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2414 BRAND MANAGEMENT

Designing and implementing appropriate Brand Strategies for handling and managing the brand equity to generate a sustained growth, as well as the appropriate brand management along time.

Requirements: AD 1320 Marketing y Having completed 180 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2415 MARKETING FOR NON-PROFIT ORGANIZATIONS

Learning the conceptual tools and the practice of appropriate marketing strategies for non-profit organizations.

Requirements: AD 1320 Marketing y Having completed 180 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2416 DIRECT MARKETING

Understanding planning and implementation of a Marketing program with individual consumers for the company products, focusing in building Databases of internal and external sources, determining how to get to the target market, selecting Direct Marketing channels and designing the material to be used.

Requirements: AD 1320 Marketing y Having completed 180 credits

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2430 ADVERTISING MANAGEMENT

Understanding the techniques that are used to carry out advertising activities which are consistent with the Marketing strategy in the company.

Requirement: AD 1521 Sales Promotion Management

Credits: 6 Level: Intermediate Knowledge Area: Marketing

AD 2440 GUIDED PROFESSIONAL PRACTICES LAE

Introducing the student in the business scenarios with the objective of learning and practicing the activities that the business manager carries out within the organization, as a means to facilitate his contact with the working environment, and serving the business community in the area.

Requirement: Having completed 216 Credits

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2510 CONSUMER ANALYSIS

Understanding the factors that impact in the behavior of the individual in his role as consumer, with the objective of supporting practical applications in the Marketing field.

Requirement: AD 1820 Market Research

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2511 CUSTOMER SEGMENTATION AND MANAGEMENT

Applying the Consumer Analysis concepts in order to carry out market segmentations, using the different multivariant techniques in a real case.

Requirements: AD 2510 Consumer Analysis y FM 1280 Multivariant Analysis

Credits: 6 Level: Advanced

AD 2531 MARKETING INTEGRAL COMMUNICATION STRATEGIES

Learning the communication model of integral Marketing for strategic decision making, recognizing the importance of coordination of all the elements of the promotional mix in the development of an effective communication program; using also other Marketing tools to implement an integral and congruent promotion strategy that has impact in the consumer and gives value to the marketing effort.

Requirements: AD 1410 Sales Management, AD 2430 Advertising Management, AD 1521 Sales Promotion y Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2561 NEW PRODUCTS AND SERVICES DEVELOPMENT AND MANAGEMENT

Analyzing the different types of products, its classification, administration, life cycle and strategies relative to positioning.

Requirements: AD 1820 Market Research y AD 2510 Consumer Analysis

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2611 HUMAN CAPITAL ATTRACTION

Identifying and applying strategies, methods and tools for the processes for attraction acquisition and selection of human capital in a global environment.

Requirement: AD 1311 Human Capital Administration

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 2612 HUMAN CAPITAL RETENTION STRATEGIES

Contrasting personnel retention strategies for the different areas that the Human Capital Administration comprises.

Requirement: AD 2211 Compensation Management

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2613 STRATEGIC PLANNING OF HUMAN CAPITAL

Learning the strategic function of the human capital management as a response to the environment, being able to have personnel as a competitive advantage for the organization.

Requirements: AD 1351 Competitive Strategy y AD 1311 Human Capital Administration.

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2614 INFORMATION TECHNOLOGY APPLIED TO HUMAN RESOURCE

Understanding and applying methodologies, techniques, and tools to administer the information systems that support the human resources function in decision making.

Requirements: AD 2661 Human Capital Development, AD 2611 Human Capital Attraction y AD 2211 Compensation Management o SC 1340 Software Development Focused to Objects.

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2615 THE HUMAN CAPITAL ADMINISTRATION IN THE INTERNATIONAL ENVIRONMENT

Understanding human capital management in an international environment, for multinational organizations.

Requirements: AD 2661 Human Capital Development, AD 2611 Human Capital Attraction y AD 2211 Compensation Management

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2621 ORGANIZATIONAL CHANGE

Learning and developing methodologies and techniques related to organizational development and change and innovation, to make organizations competitive from an interdisciplinary approach; with the purpose of developing skills for organizational diagnosis.

Requirement: AD 1361 Leadership and Organizational Change

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 2622 INNOVATION AND CHANGE

Understanding and applying the concepts and techniques related with the creation and search of opportunities for new businesses, including technologies and processes to incorporate in the company operations.

Requirement: AD 1361 Leadership and Organizational Change

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 2661 HUMAN CAPITAL DEVELOPMENT

Learning and applying methodologies to maximize competencies, skills and abilities and capacities of the human capital within the organizations.

Requirement: AD 1311 Human Capital Administration

Credits: 6 Level: Intermediate

Knowledge Area: Human Resources and Organizational Change

AD 2810 SEMINAR ON INTERNATIONAL MARKETING

Consolidating the knowledge of the environment and the administration of the Marketing mix in the international field.

Requirement: AD 1630 International Business Plan, AD 2410 International Marketing y

Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2820 MARKET RESEARCH SEMINAR

Integrating the market research knowledge, carrying out a practical research, with Multivaried Analysis, of the data obtained.

Requirement: FM 1280 Multivaried Analysis

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2860 GUIDED PROFESSIONAL PRACTICES LMI

Introducing the student to the business scenarios, in order to learn and practice the activities that the Marketing expert carries out in within the organization, as a means to facilitate their contact with the work field and serve the business community in the area.

Requirement: Having completed 216 Credits

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2865 GUIDED PROFESSIONAL PRACTICES LRH

Introducing the student in the business scenarios, with the objective of learning and practicing the activities carried out by the human capital administrator within the organization, as a means to facilitate his contact with the work environment and serve the business community in the area.

Requirement: Having completed 216 Credits

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2871 FINAL EVALUATION PROGRAM LMI I

Integrating the knowledge acquired in a global manner, that enable the student to use the different Marketing tools for the solution of real problems.

Requirement: AD 2860 Guided Professional Practices LMI

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2872 FINAL EVALUATION PROGRAM LMI II

Integrating the knowledge acquired in a global manner that enables the student to use the different tools in the continuation of the practical case of the Final Evaluation Program LMI I.

Requirement: AD 2870 Final Evaluation Program LMI

Credits: 6 Level: Advanced Knowledge Area: Marketing

AD 2881 FINAL EVALUATION PROGRAM LAE I

Facilitating and strengthening in the student the process to integrate theoretical knowledge and its application in a practical case.

Requirement: AD 2440 Guided Professional Practices LAE

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2882 FINAL EVALUATION PROGRAM LAE II

Facilitate and strengthen in the student the process to integrate the theoretical knowledge and its application in the continuation of the practical case of the Final Evaluation Program LAE I

Requirement: AD2880 Final Evaluation Program I

Credits: 6 Level: Advanced Knowledge Area: Management

AD 2891 FINAL EVALUATION PROGRAM LRH I

Supporting the strengths and developing the skills of the students who are in the final part of their degree, preparing them for the solution of the challenges posed in the current environment.

Requirement: AD 2865 Guided Professional Practices LRH

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 2892 FINAL EVALUATION PROGRAM LRH II

Supporting the strengths and developing the skills of the students who are in the final part of their degree, preparing them for the solution of the challenges posed in the current environment, continuing with the practical case of the Final Evaluation Program LRH I

Requirement: AD 2890 Final Evaluation Program LRH I

Credits: 6 Level: Advanced

Knowledge Area: Human Resources and Organizational Change

AD 3000 E-BUSINESS

Learning the changes that occur in businesses as a result of Internet expansion.

Requirement: Having completed 144 credits

Credit: 6 Level: Intermediate Knowledge Area: Marketing

AD 5000 TOURISM SERVICE MARKETING

Facing the student to the challenges in the administration and design of the Marketing strategy in the Tourism sector, emphasizing hotel services, travel agencies, consulting firms, airlines and restaurants. Designing marketing strategies, promotion, cost distribution and identification and development of new market opportunities in the international context.

Requirement: AD 1320 Marketing y Having completed 144 credits

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5001 ORGANIZATION OF CONGRESSES AND INTERNATIONAL EXHIBITIONS

Understanding the importance of fairs and congresses for internationalization of products and services; as well as identifying the necessary tasks for planning and organization of an international event that helps in building relations and commercial agreements between organizations

Requirement: AD 5000 Tourism Service Marketing

Credits: 6 Level: Intermediate Knowledge Area: Tourism

AD 5002 FOOD AND BEVERAGE WORKSHOP

Training and educating students in handling different services in being in charge of the tables, calculating the cost for beverages and, in general, the application of guidelines at a management level in the area of foods and beverages, focusing the improvement of productivity in the organizations.

Requirement: AD 5004 Gastronomy

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5003 INTERNATIONAL FOOD WORKSHOP

Studying the cooking art in order to prepare international and domestic cuisine.

Discussing the importance of studying foods from other countries, demonstrations and practice of decorative trays appropriate for catering in formal occasions and festivities. Elaborating recipes for desserts and learning how to classify recipes.

Requirement: AD 5002 Food and Beverage Workshop

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5004 GASTRONOMY

Learning the importance of cooking in the different existing cultures.

Requirement: AD 5012 Tourism

Credits: 6 Level: Intermediate Knowledge Area: Tourism

AD 5005 DEVELOPMENT OF NEW PROPERTIES AND TOURISM SERVICES

Analyzing the different types of products, their classification, management, stages in the life cycle and strategies related to positioning in the tourism industry.

Requirement: AD 5013 Hotel and Restaurant Management y Having completed 180 credits

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5006 SEMINAR ON HOTELS AND TOURISM

Provide the student a total overview of the hospitality and tourism industries and their interaction.

Requirement: Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5008 SEMINAR ON INTERNATIONAL CULTURE AND CUISINE

Analyzing and associating cultural aspects of the geographical regions with their culinary art.

Requirement: AD 5003 International Food Workshop y Having completed 180 credits

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5009 GUIDED PROFESSIONAL PRACTICES LTU

Introducing the student into the business environments, in order to learn and practice the activities that a business person would carry out and in his professional development within the organization to facilitate his contact with the labor field and serve the business community in the area.

Requirement: Having completed 216 Credits

Credits: 6 Level: Advanced Knowledge Area: Tourism

AD 5010 FINAL EVALUATION PROGRAM LTU I

Facilitate and strengthen in the student the integration process for theoretical knowledge and its application in a practical case.

Requirement: AD 5009 Guided Professional Practices LTU

Credits: 6 Level: Advanced Knowledge area: Tourism

AD 5011 FINAL EVALUATION PROGRAM LTU II

Facilitate and strengthen in the student the integration process for theoretical knowledge and its application in continuing the practical case of the Final Evaluation Program LTU I

Requirement: AD 5010 Final Evaluation Program LTU I

Credits: 6 Level: Advanced Knowledge area: Tourism

Department of Basic Sciences

CB 1270 BIOLOGICAL BASIS FOR HUMAN BEHAVIOR

Analyzing the complex mental processes based on physiology of the nervous system.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 1410 BIOLOGICAL CHEMISTRY

Understanding the structure and functions of the essential components in the body (water, carbohydrates, proteins, fats, nucleic acids and vitamins) and the cellular metabolic mechanisms that lead to the production of energy; as well as its application in medicine.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Physiological Sciences.

CB 1550 HISTOLOGY

Describing the normal microscopic structure of the tissues that make up the organs in the organs and systems within the human body and their application in medicine.

Requirement: CB 2305 Embryology y CB 2320 Cellular and molecular biology

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 1570 HISTOLOGY LABORATORY

Developing the abilities and skills to identify under the microscope the cellular structure of the tissues that comprise the organs and systems in the human body.

Requirement: CB 2305 Embryology y CB 2320 Cellular and molecular biology.

Credits: 3 Level: Basic Knowledge area: Morphological Sciences

CB 1610 MEDICAL GENETICS

Analyzing the mechanisms that originate chromosome heritage, monogenic, multifactor and non-traditional. Review the current diagnosis technology used in the identification of genetic illnesses, the molecular cloning processes and fundamentals of genic.

Requirement: CB 1550 Histology, CB 1570 Histology Laboratory, CB 2305

Embryology y CB 2320 Cellular and molecular biology

Credits: 6 Level: Basic Knowledge area: Morphological Sciences.

CB 1650 MEDICAL BIOCHEMISTRY

Analyze the metabolic processes in the human body, their interrelations, their regulation mechanisms, alterations and implications in medicine.

Requirements: CB 1410 Biological chemistry y CB 2320 Cellular and molecular biology

Credits: 6 Level: Basic Knowledge area: Physiological Sciences

CB 1750 MICROBIOLOGY AND PARASITOLOGY

Reviewing the classification, morphology and metabolism of bacteria, fungi, virus and parasites of medical importance; analyzing the antigenic, the determinant factors in its pathogenic level and virulence; as well as the most important means for their etiological diagnosis.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB1650 Medical biochemistry, CB 2305 Embryology y CB 2320 Cellular and molecular biology

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 1770 MICROBIOLOGY AND PARASITOLOGY LABORATORY

Developing the methods and techniques used in medical microbiology for isolating and identifying the key pathogenic agents for man starting from clinical specimen and carrying out an applied research applied in real environments.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB1650 Medical biochemistry, CB 2305 Embryology, CB 2320 Cellular and molecular biology

Credits: 3 Level: Basic Knowledge area: Morphological Sciences

CB 1910 PHARMACOLOGY AND TOXICOLOGY

Explaining the kinetics and dynamics of the drugs used in illness prevention, diagnosis and treatment, and its posology; as well as describing the pharmacological characteristics of the substances that may generate intoxication in human beings.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1610 Genetics, CB 1650 Medical biochemistry, CB 1750 Microbiology and Parasitology, CB 1770 Microbiology and Parasitology Laboratory, CB 2300

Anatomy I CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology, CB 2335 Physiology I y CB 2340 Physiology Laboratory I

Credits: 6 Level: Basic Knowledge area: Physiological Sciences

CB 2210 NUTRITION

Analyzing the characteristics and functions of carbohydrates, fats, proteins, vitamins and minerals, the diet patterns and their relationship with culture, economy and food technology; as well as its impact in human health and wellbeing.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 2300 ANATOMY I

Describing the anatomic and functional characteristics of the organs that integrate the human body at a systems level: skeletal muscle, cardiovascular, respiratory and endocrine.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2305 EMBRYOLOGY

Analyzing the human reproduction processes, normal development during gestation and the alterations which originate birth anomalies.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2310 ANATOMY II

Describing the anatomic and functional details of the organs integrating the nervous system, digestive system, urinary system and masculine and feminine genital systems. Analyzing with a clinical orientation the abnormalities linked to the main illnesses.

Requirement: CB 2300 Anatomy I

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2315 ANATOMY LABORATORY

Applying the knowledge of Anatomy I and II, in the description of anatomic areas through real and/or simulated models.

Requirement: CB 2300 Anatomy I

Credits: 3 Level: Basic Knowledge area: Morphological Sciences

CB 2320 CELLULAR AND MOLECULAR BIOLOGY

Analyzing the structure and functions of the different elements in a cell, the interrelations in the processes which comprise the cellular cycle and its role in intracellular homeostasis or illnesses which create dysfunction in organs and systems.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2325 PATHOLOGY

Promoting in the student the edification of knowledge on morphological basis of the illnesses of the different organs and systems, for the understanding of the risk factors and clinical expressions that will serve as support for diagnosis and therapeutic decisions.

Requirements: CB 1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1610 Genetics, 1650 Medical biochemistry, CB 1750 Microbiology and Parasitology, CB 1770 Microbiology and Parasitology Laboratory, CB 2300 Anatomy I, CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology, CB 2335 Physiology I, CB 2340 Physiology Laboratory I

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2335 PHYSIOLOGY I

Analyzing the operation of the cardiovascular, renal and respiratory systems, their main physical-chemical principles, regulation and control mechanisms; as well as the interrelation existing among them.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1650 Medical biochemistry, CB 2300 Anatomy I, CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology

Credits: 6 Level: Basic Knowledge area: Physiological Sciences

CB 2340 PHYSIOLOGY LABORATORY I

Applying the knowledge of physiology of the cardiovascular, renal and respiratory systems in living models and/or simulated, using the scientific method in the development of experimental protocols.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1650 Medical biochemistry, CB 2300 Anatomy I, CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology

Credits: 3 Level: Basic Knowledge area: Physiological Sciences

CB 2345 PHYSIOLOGY II

Analyzing the operation of the nervous, endocrine and digestive system, their physical-chemical principles, regulation and control mechanisms; as well as the interrelation existing among them.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1650 Medical biochemistry, CB 2300 Anatomy I, CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology, CB 2335 Physiology I, CB 2340 Physiology Laboratory I

Credits: 6 Level: Basic Knowledge area: Physiological Sciences

CB 2350 PHYSIOLOGY LABORATORY II

Applying the knowledge of physiology of the nervous, endocrine and digestive systems in living models and / or simulated, using the scientific method in the development of experimental protocols.

Requirements: CB1410 Biological chemistry, CB 1550 Histology, CB 1570 Histology Laboratory, CB 1610 Genetics, CB1650 Medical biochemistry, CB 1750 Microbiology and Parapsychology, CB 1770 Microbiology and Parapsychology Laboratory, CB 2300 Anatomy I, CB 2305 Embryology, CB 2310 Anatomy II, CB 2315 Anatomy Laboratory, CB 2320 Cellular and molecular biology, CB 2335 Physiology I, CB 2340 Physiology Laboratory I

Credits: 3 Level: Basic Knowledge area: Physiological Sciences

CB 2355 CHEMISTRY

Analyzing the permanent transformation of materials; its changes in energy, structure and properties, applying the concepts and methods of chemical sciences.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 2360 CHEMISTRY LABORATORY

Demonstrating the materials physical and chemical properties, applying the basic concepts of chemical.

Requirements: None

Credits: 3 Level: Basic Knowledge area: Natural Sciences

CB 2370 FIRST AID

Applying correctly the emergency action principles in an accident or sudden illness, organizing and elaborating an action plan for first aid.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 2375 FIRST AID ATTENTION

Will identify rapidly the patient traumatized with critical injuries and will establish priorities for pre-hospital attention, towards essential stabilization, appropriate and efficient, in the accident site, organizing and elaborating an action plan for attention.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 2380 ANATOMY FOUNDATIONS II

Understanding the general knowledge about the anatomic structure of the central nervous system, digestive, respiratory, cardiovascular, genital and urinary systems to correlate them with the physiological processes.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

CB 2385 ECOLOGY AWARENESS

Learning and understanding the importance of the most relevant topics in ecology through the reading-analysis of ecology news gathered in the latest years. Acquiring the necessary elements to becoming aware, based on theoretical facts taken from reality and being able to provide well supported judgments; as well as adopting the corresponding actions.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Natural Sciences

CB 2395 ANATOMY FOUNDATIONS I

Shall understand the general knowledge regarding anatomic structure of the bones, muscles, tendons and joints correlating them with the physiologic processes.

Requirements: None

Credits: 6 Level: Basic Knowledge area: Morphological Sciences

Department of Clinical Sciences**CC 1930 BIOETHICS I * Mandatory (B1)**

Reflecting on the basis of moral philosophy through the study of ethics and philosophic anthropology, studying human behavior, the persona and the conscience. Studying the human actions and attitude of the person through principles and values developed in the different philosophical trends, as well as their relationship with the medical actions.

Requirements: Having completed Basic Science Credits: 6 Level Intermediate.

CC 1970 RADIOLOGY AND IMAGEOLOGY

Promote in the student the edification of the necessary knowledge for a rational use and interpretation of para-clinical exams as support in the decision of diagnosis or therapeutic modification.

Requirements: CC 2910 Physiopathology

Credits: 6 Level: Intermediate

CC 2260 GERIATRICS (B2)

Promoting the edification of the necessary competencies to prevent and solve the most frequent health problems in the elderly patient and improve their quality of life.

Integrating the review of digestive, urinary, neurological, respiratory and osteo-muscular revision as well as preventive programs and therapeutic plans for their attention.

Requirements: CC 2855 Gerontology I, CC 2860 Gerontology II

Credits: 6 Level: Advanced

CC 2530 EMERGENCY MEDICINE

Fostering the construction of knowledge and skills necessary to solve the health problems (medical and surgical) that require immediate medical attention, due to their sudden appearance and potential for producing death or damaging the quality of life of the patient if treatment is delayed. Integrates competencies for ambulatory attention and pre and hospital for these health problems.

Requirements: Having completed 108 credits de Level advanced

Credits: 6 Level: Advanced

CC 2600 LEGAL MEDICINE

Fostering the reflection on quality of medical attention evaluating the legal implications of the clinical file and the participation of health personnel in the medical attention processes, reviewing the General Health Regulations and the Civil Code. Reviewing the most important aspects of professional, civil and legal responsibility of the physician and health personnel.

Requirements: Having completed Basic Sciences

Credits: 6 Level: Intermediate.

CC 2620 PUBLIC HEALTH

Promoting the construction of the professional competencies necessary for health attention in society as a whole. Reflecting on the multi-cause and social theories of illness, behavior of health problems that affect social groups, strategies and management of public resources for their attention.

Reflecting also on the health programs by age group and campaigns focused to education and elimination of risks for social health.

Requirements: Having completed 108 credits de Level advanced

Credits: 10 Level: Advanced

CC 2700 INTERNSHIP FOR PRE-DEGREE I

CC 2800 INTERNSHIP FOR PRE-DEGREE II

Participating directly in medical attention processes in Pediatrics, Internal Medicine, Surgery General, Gynecology and Obstetrics, Emergency and Family Medicine services or first contact attention with the objective of consolidating the edification of knowledge that allow the general practitioner a high level of resolution ability in clinical problems with higher morbidity.

Consolidating a service posture, professional ethics and consolidating competencies to serve the legal medical problems.

Requirements: Having completed all the courses for CB and CC

Credits: Internship for Pre-degree I 24

 Internship for Pre-degree II 24

Level: Advanced

CC 2810 CLINICAL PROPEDEUTICS

Being able to have the student develop the necessary abilities to carry out an effective interrogation and clinical exploration and an appropriate handling of the clinical file that allows integrating effective diagnosis hypothesis with real and complex clinical problems, as a determinant element to integrate oriented therapeutic plans to solve the health needs of the patient.

Requirements: CC 2910 Physiopathology

Credits: 12 Level: Intermediate

CC 2815 FAMILY MEDICINE

Offering the student the clinical and academic experiences that support the construction of knowledge and competencies that allow them to solve the illnesses with higher demand in family medicine, based on reference and counter-reference criteria, sending in a timely matter to the corresponding specialist in such cases that go beyond his resolution ability.

Promoting the development of a posture toward clinical medicine oriented to the family group and toward optimization of family and institutional resources.

Requirements: Having completed 108 credits de Level advanced

Credits: 10 Level: Advanced

CC 2840 PEDIATRICS

Promoting in the student the construction of clinical competencies that enable participating effectively in caring for the growth and development of children and teenagers, diagnosing and treating the most common problems and timely referring to the specialist in abnormal situations which are beyond his professional competency.

Likewise, developing the knowledge and competencies necessary to serve appropriately the main illnesses affecting patients in these ages and referring the pediatrician in the cases where the assistance of the specialist is required.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2920

Internal Medicine I, CC 2925 Internal Medicine II

Credits: 12 Level: Advanced

CC 2845 GYNECOBSTETRICS

Promoting in the student the edification of clinical competencies that enable participating effectively in the care of pregnant women and the child, diagnosing and treating in a timely manner the most common problems in gestation and timely referring the specialist, the abnormal situations that are beyond his professional skills .

Likewise, developing the knowledge and competencies necessary to appropriately treat the main illnesses in the feminine genital system and timely referring the patients that require the assistance of a specialist.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2935 Surgery I, CC 2940 Surgery II Credits: 12 Level: Advanced

CC 2850 ALTERNATIVE MEDICINE

Fostering the student to recognize traditional medicine as an important element of our culture and develop the knowledge and competencies to take advantage of the diagnosis and therapeutic resources. Review other expressions such as homeopathy, acupuncture, reflexology, aromatherapy, iridology, etc. present in the demand of the population as well as the resources that may be used in granting health services.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2920 Internal Medicine I.

Credits: 6 Level: Advanced

CC 2855 GERONTOLOGY I* Mandatory (B1)

Promoting in the student the edification of knowledge about the biologic processes in aging and the psychological, social and family factors that take part in the quality of life of the.

Requirements: Having completed Basic Sciences

Credits: 6 Level: Intermediate

CC 2860 GERONTOLOGY II (B2)

Promoting in the student the edification of professional competencies that enable them to build and develop prevention programs and attention to risk factors that may deteriorate the quality of life of the elderly.

Requirements: CC 2855 Gerontology I

Credits: 6 Level: Advanced

CC 2865 NUTRITION II (B2)

Promoting the edification of knowledge and competencies to select foods and elaborate diets according to the caloric and nutritional requirements for each patient. Review the indicated therapeutic schemes in the treatment of health problems in nutritional areas (anemia, obesity, dislipidemia, malnutrition, etc.), that address the biologic, psychologic, socio-cultural and economic area.

Requirements: CB 2210 Nutrition I

Credits: 6 Level: Advanced

CC 2870 NUTRITION III (B2)

Reviewing the nutritional therapeutic schemes in the integral treatment of patients with acute or chronic illnesses (diabetes, hypertension, carcinoma, etc.); elaboration of diets according to caloric and nutritional requirements in each patient; and different areas of oral, and parental nutrition.

Requirements: CB 2210 Nutrition I, CC 2865 Nutrition II

Credits: 6 Level: Advanced

CC 2875 CLINICAL METHOD AND EPIDEMIOLOGIC METHOD *
Mandatory(B1)

Promoting the edification of knowledge to make operative the scientific method in clinical and epidemiologic research as well as competencies to elaborate research protocols according to the methodological, ethical and normative guidelines. Start the construction of a research protocol.

Requirements: Having completed Basic Sciences

Credits: 6 Level: Advanced

CC 2880 RESEARCH DESIGNS

Promoting the edification of competencies for the selection and handling of Random Clinical Essays, Cohorts, Cases and Controls; their methodological characteristics (specific) for the development of each one, and the scopes in generation of knowledge (scientific evidence). Making adjustments to the research protocol and start its development.

Requirements: CC 2875 Clinical method and Epidemiologic Method

Credits: 6 Level: Advanced

**CC 2885 MEDICINE BASED ON EVIDENCE AND WORDING OF
MEDICAL RECORD**

Promoting the edification of competencies to evaluate the quality of the scientific publications and discriminate useful bibliography in medical decision making. Finish research, elaborate the medical document and prepare for presentation and/or publication.

Requirements: CC 2875 Clinical method and Epidemiologic Method, CC2880 Research Designs

Credits: 6 Level: Advanced

CC 2890 BIOETHICS II

Judging the basis of morality of the medical action through the study of Bioethics and the analysis of the situation of ethical-clinical dilemmas to which the health professional faces, from the beginning to the end of his life.

Requirements: CC 1930 Bioethics I

Credits: 6 Level: Advanced

CC 2895 BIOETHICS III

Promoting the construction of a medical professional posture toward attention quality where the bioethical and legal medicine aspects may be integrated, as well as the physician, patient and family rights and responsibilities.

Requirements: CC 1930 Bioethics I, CC 2890 Bioethics II

Credits: 6 Level: Advanced

CC 2900 CLINICAL MICROBIOLOGY

Promoting in the student in Pre-degree the construction of knowledge regarding the causal relation of the pathogenic factors of bacteria, virus, fungi and parasites with the clinical manifestations of infecto-contagious common illnesses; knowledge of the usefulness in the etiologic and therapeutic diagnosis decisions of this medical entities.

Requirements: Having completed Basic Sciences Credits: 6 Level: Intermediate

CC 2905 PHARMACOTHERAPY

Promoting in the student the construction of kinetics and applied dynamics knowledge of the medications used in the most frequent illnesses as well as the socio-economic and cultural factors that impact the therapeutic decision of the physician and following the treatment in the case of the patient.

Requirements: Having completed Basic Sciences

Credits: 6 Level: Intermediate

CC 2910 PHYSIOPATHOLOGY

Promoting in the medical student the construction of knowledge that explains the signs and symptoms of syndromes and the most common illnesses (organs and systems) as well as analysis and understanding of the multiple forms of the body to express clinically in the ill state.

Requirements: Having completed Basic Sciences Credits: 6 Level: Intermediate

CC 2915 PREVENTIVE MEDICINE

Addressing the basis and professional competencies necessary for attention with the approach to preventive-anticipatory orientation and risk. Reflecting on the concepts of more use in Preventive Medicine, natural history and illnesses and the prevention levels of infecto-contagious and chronic-degenerative illnesses of greater incidence and prevailing; as well as the healthy life styles and the ones that privilege the appearance of illnesses.

Requirements: Having completed Basic Sciences Credits: 6 Level: Intermediate

CC 2920 INTERNAL MEDICINE I

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of infectious, inflammatory and degenerative processes that are most frequent in the digestive, cardiovascular, respiratory, and immune systems. Promoting in the students the construction of clinical competencies necessary to solve these problems in the general practitioner practice and timely referring the patient who requires specialty attention.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic

Credits: 24 Level: Advanced

CC 2925 INTERNAL MEDICINE II

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of infectious, inflammatory and degenerative processes that are most frequent in the neurological, endocrine, nephrologic, and hematic systems. Promoting in the students the construction of clinical competencies necessary to solve these problems in the general practitioner practice and timely referring the patient who requires specialty attention.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2920 Med.

Internal I.

Credits: 24 Level: Advanced

CC 2930 INTERNAL MEDICINE III

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of infectious, inflammatory and degenerative processes that are most frequent in the areas of dermatology, psychiatry and oncology. Promoting in the students the construction of clinical competencies necessary to solve these problems in the general practitioner practice and timely referring the patient who requires specialty attention.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2920

Internal Medicine I, CC 2925 Internal Medicine II

Credits: 18 Level: Advanced

CC 2935 SURGERY I

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of infectious, inflammatory and degenerative processes that are most frequent. Promoting in the students the construction of the clinical competencies necessary for their attention in the general practitioner practice; and timely referring the patient who requires specialty attention.

Also the pre, trans and post-surgery cares are reviewed as well as the acquisition of skills in the basic surgical procedures.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic

Credits: 6 Level: Advanced

CC 2940 SURGERY II

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of the most frequent problems in reconstructive plastic surgery (burnings and injuries) and vascular surgery as well as most frequent fractures and sprains. Promoting in the students the construction of the clinical competencies necessary for their attention in the general practitioner practice; and timely referring the patient who requires specialty attention.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2935

Surgery I

Credits: 12 Level: Advanced

CC 2945 SURGERY III

Reviewing etiology, physio-pathogenics, prevention, diagnosis and treatment of the most frequent surgical illnesses of the urinary system (infections, litiasis, neoplasia, etc.); the most common emergencies and illnesses in the ear, nose, pharynx, larynx and the most common emergencies and illnesses in the eyelids, cornea, conjunctiva, as well as

disorders in refraction and intraocular pressure, etc. Promoting in the students the construction of the clinical competencies necessary for their attention in the general practitioner practice; and timely referring the patient who requires specialty attention.

Requirements: CC 2910 Physiopathology, CC 2810 Clinical Propedeutic, CC 2935 Surgery I, CC 2940 Surgery II

Credits: 12 Level: Advanced

CC 3001 MEDICAL RESEARCH AND TECHNOLOGY

Promoting in the student the construction of the tools of scientific methodology used in the medical technology area for its application in generating knowledge and the development of design projects and the construction of devices and equipment in the area.

Requirements: CB 2355, CB 1410, CB 2335 y CB 2345.

Credits: 6 Level: Basic Knowledge Area: Biomedical Engineering

CC 3002 ATTENTION TO HEALTH AND SERVICE QUALITY

Presenting a contemporary vision of the elements that are characteristic in efficient, timely medical attention and with warmth as well as the quality elements involved in the relationship occurring among the individuals in the health team, with an emphasis in the role of the biomedical engineer in the health attention processes.

Requirements: CB 2355, CB 1410, CB 2335 y CB 2345

Credits: 6 Level: Basic Knowledge Area: Biomedical Engineering

CC 3003 POWER SYSTEMS IN MEDICAL TECHNOLOGY

Integrating the analysis of the elements that comprise the electronic power systems, applied in the diagnosis and medical treatment equipment and their operating processes as well as the knowledge to optimize and protect these equipments.

Requirements: Having completed 180 credits.

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

CC 3004 REGULATIONS AND MEDICAL ATTENTION PROCESSES

Evaluating the Mexican Official Standards implied in handling the medical technology, as well as the main standards and regulations of the hospital scenarios, elaborated to guarantee the good use and optimization of these resources.

Requirements: Having completed 220 credits.

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

CC 3005 QUALITY SYSTEMS FOR MEDICAL DEVICES

Promoting the necessary learnings for the design, evaluation and improvement of the quality systems for medical devices.

Requirements: Having completed 215 credits

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

CC 3006 OPERATION AND CONSTRUCTION OF MEDICAL DEVICES I

Promoting the necessary learnings for the installation, handling and construction of the biomedical devices with diagnosis orientation, as well as training the personnel responsible for the operation and maintenance.

Requirements: CC 3005

Credits: 6 Level: Advanced. Knowledge Area: Biomedical Engineering.

CC 3007 OPERATION AND CONSTRUCTION OF MEDICAL DEVICES II

Promoting the necessary learnings for the installation, handling and construction of the biomedical devices with therapeutic orientation, as well as training personnel responsible of the operation and maintenance.

Requirements: CC3006

Credits: 6 Level: Advanced. Knowledge Area: Biomedical Engineering.

CC 3008 DESIGN OF BIOMECHANICAL SIMULATORS

Applying the knowledge in anatomy, biomechanics and computers, for the total design of biomechanical projects presented in scale or under a computer aided platform.

Requirements: Having completed 215 credits

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

CC 3009 DESIGN AND CONSTRUCTION OF PROSTHESIS AND BIOMECHANICAL DEVICES I

Applying the knowledge in medicine, mechanics and electronics to design and build prosthesis or devices to replace a damaged element in the upper or lower limbs, in order to restore the function and quality of life of the patients who have lost it.

Requirements: CC 3008

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

CC 3010 DESIGN AND CONSTRUCTION OF PROSTHESIS AND BIOMECHANICAL DEVICES II

Applying the knowledge in medicine, mechanics and electronics to design and build prosthesis or devices to replace a damaged organ or element in the head, thorax or abdomen, in order to restore the function and quality of life of the patients that have lost it.

Requirements: CC 3009

Credits: 6 Level: Advanced Knowledge Area: Biomedical Engineering

Department of Information Sciences

CI 0510 WRITTEN COMMUNICATION SKILLS

Acquiring and / or developing the basic written expression skills in order to perform appropriately in elaborating texts during professional studies.

Requirement: None

Credits: None Level: Propedeutic Knowledge area: Basic Skills

CI 1130 VERBAL COMMUNICATION

Developing the communications competency to express orally in front of an audience, applying the theoretic-practical knowledge in the informative speech field.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 1131 VERBAL REASONING

Developing the verbal skills so they facilitate the learning processes and academic understanding.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 1160 COMMUNICATION RESEARCH

Training the student in the use of research techniques and procedures that are specific to the communications field, for the solution and/ or response of problems and concerns proper of this studying area.

Requirement: Having completed 250 credits

Credits: 6 Level: Advanced Knowledge area: Basic Skills

CI 1430 ORGANIZATIONAL COMMUNICATION

Identifying the communication processes within the organizations in order to improve its quality and flow through the analysis of the communication networks, types and levels of the messages.

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Business Communication

CI 1510 CINEMATOGRAPHY APPRECIATION

Understanding the film story through a historical-theoretic revision of the cinematographic event and the evolution of its language.

Requirement: None

Credits: 6 Level: Advanced Knowledge area: Communications Media

CI 1530 ARGUMENTATION AND DISCOURSE STRATEGIES

Understanding and applying the basic principles of discussing and the necessary communication strategies to achieve an agreement and / or consensus.

Requirement: Verbal Communication

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 1700 COMMUNICATIONS

Understanding the language, characteristics and communications models applying them to daily life to better understand their environment and as a support in their professional development using the tools and techniques that are analyzed along the course.

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 1710 MEDIA MANAGEMENT

Integrating the knowledge regarding mass media communication, regarding its background, functions, advantages and disadvantages, contracting and scope, for its use and application in professional life.

Requirement:

Credits: 6 Level: Intermediate Knowledge area: Advertising

CI 1720 TECHNICAL INSTRUCTION OF COMMUNICATION MEDIA

Training for the correct technical operation of the specialized equipment for radio, television and movies.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 1830 EXTERNAL AND INTERNAL COMMUNICATION

Learning and analyzing the communications that the organization generates internally and externally as well as the basic principles of public relations.

Requirement: CI 1430

Credits: 6 Level: Advanced Knowledge area: Business Communications

CI 1900 SEMIOTICS

Discovering the different facets of meaning in the communication process. Identifying the different levels and instruments through which analysis of the meanings is carried out

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 1910 RADIOPHONIC STYLES

Dominating the elements and tools of radio language for the appropriate use of each of the styles and formats which comprise the production and radial operation.

Requirement: CI1720 Technical Instruction of Communication Media y CI2130 Script Production.

Credits: 6 Level: Intermediate Knowledge area: Communications Media

CI 2110 ADVERTISING

Learning the nature of Advertising, its importance in economics and the characteristics of the different types of advertising, besides the techniques in evaluating its effectiveness and for sales promotion.

Requirement: Marketing.

Credits: 6 Level: Intermediate Knowledge area: Advertising

CI 2130 SCRIPT PRODUCTION

Learning the different structures for the creation and elaboration of scripts for the different media; likewise, carrying out practices on writing original scripts and adaptations in the different styles.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 2140 MASS COMMUNICATION THEORY

Analyzing the development of the models and theoretical postulates on mass communication. Distinguish the appropriateness or inappropriateness of the different theories when applied to current mass communication phenomena.

Requirement: None

Credits: 6 Level: Advanced Knowledge area: Basic Skills

CI 2150 GUIDED PROFESSIONAL PRACTICE LCIC

Acquiring the practical expertise in the communications work field.

Requirement: Having completed 200 credits.

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 2160 PERSUASIVE COMMUNICATION

Understanding and applying the persuasion techniques, the propaganda phenomenon and information campaigns, distinguishing the contexts under which they are used, purposes and likely effects.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Advertising

CI 2210 PUBLIC OPINION

Examining the meaning and impact of public opinion, the actors in this process and their interrelations.

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Political Communication

CI 2230 IMAGE STRATEGIES AND INSTITUTIONAL IDENTITY

Learning and applying the strategies that enable implementing an institutional image and identity.

Requirement: CI 1430

Credits: 6 Level: Advanced Knowledge area: Business Communication

CI 2250 COMMUNICATION AND SOCIAL RESPONSIBILITY

Analyzing the social context where the communication is located and the ethical impact that this relation implies.

Requirement: Having completed 216 credits

Credits: 6 Level: Advanced Knowledge area: Basic Skills

CI 2310 ADVERTISING CAMPAIGN

Acquiring the knowledge and practice necessary for the development of an advertising campaign in its different stages from product to consumer receiving.

Requirement: CI 2110

Credits: 6 Level: Intermediate Knowledge area: Advertising

CI 2320 VIDEO AND COMMUNICATION

Analyzing and producing cultural, commercial and journalist videos taking into account a historical perspective.

Requirement: CI 2350, CI 1720, CI 2130

Credits: 6 Level: Intermediate Knowledge area: Communications Media

CI 2330 MEDIA PERFORMANCE

Developing the skills to lead programs in radio and television.

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 2350 VISUALIZATION AND THE MEDIA

Examining the topics related to image, and visual media through their historical development and from the different perspectives and cultural manifestations (art, technology and media).

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Communications Media

CI 2420 RADIO PRODUCTION

Training the student in the appropriate use of the voice and efficient handling of the different tools and elements that comprise radio production. Elaborating programs that will be broadcasted by Radio UDEM and external broadcasting stations.

Requirement: CI 1910 Radiophonic Styles.

Credits: 6 Level: Intermediate Knowledge area: Communications Media

CI 2460 COMMUNICATION AND CONFLICT

Acquiring the knowledge and skills regarding conflict handling and theories and techniques for its management in the social and organizational context.

Requirement: None

Credits: 6 Level: Advanced Knowledge area: Business Communication

CI 2620 TELEVISION PRODUCTION

Producing recorded and live television programs exploring different television styles and analyzing the Mexican television programming.

Requirement: CI 2320

Credits: 6 Level: Advanced Knowledge area: Communications Media

CI 2720 CINEMATOGRAPHIC PRODUCTION

Learning and applying the cinematographic language and participating in the production of a short film.

Requirement: CI 2620, CI 1510

Credits: 6 Level: Advanced Knowledge area: Communications Media

CI 2850 FINAL EVALUATION PROGRAM LCIC

Elaborating a project that enables integrating knowledge, skills and specific behaviors of a Bachelor in Information Sciences and Communication related to concrete improvement situations in the communications field.

Requirement: Being in the last semester

Credits: 6 Level: Advanced Knowledge area: Basic Skills

CI 3005 COMMUNICATION TEXTS

Developing in the student the ability for reading, understanding, writing on fundamental communication texts.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 3010 COMMUNICATION IN THE CONTEMPORARY CONTEXT

Examine the changes that have marked the transition of communication studying toward the field of cultural study, in the context of modernity toward the so-called postmodernism.

Requirements: None

Credits: 6 Level: Advanced Knowledge area: Basic Skills

CI 3015 THEORIES AND EXPLORATION OF INTERPERSONAL COMMUNICATION

Learning and differentiating the human communication phenomenon, its structure and functions and enable a close relationship between personal communication experiences and the theoretical.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 3020 COMMUNICATION IN A GLOBAL SOCIETY

Examine the intercultural communication processes and analyze the impact of international communication flow in the Mexican context to understand the role of communication in a globalized context.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 3025 WORLD JOURNALISM

Learning the role of the press and its impact in the historic future and the main countries of Europe, United States and Mexico. Comparing and evaluating content, technology and manufacturing processes of the main journalistic companies.

Requirement: None

Credits: 6 Level: Basic Knowledge area: Communications Media

CI 3030 INFORMATION JOURNALISM

Developing the ability to gather data, prioritize and write, based in a personal journalistic style manual, the different information styles in order to achieve its publication in the university news agency and the communication organizations and to practice the journalist, photographer, editor, designer and advertiser roles.

Requirement: World Journalism

Credits: 6 Level: Basic Knowledge area: Basic Skills

CI 3045 EFFECTIVE ORAL AND WRITTEN COMMUNICATION

Developing competencies to write and verbally present new ideas, diagnosis, projects, results reports, plans.

Requirement: Having completed 150 credits of the degree

Credits: 6 Level: Intermediate Knowledge area: Basic Skills

CI 3050 OPINION AND INVESTIGATION JOURNALISM

Making the student sensitive, through reading and research about the world events, national and local, and developing their critical judgment to elaborate their own opinion regarding the different topics of social interest. Elaborate opinion articles, reports, columns, essays, editorials and epigrams and interpret journalistic cartoons.

Requirement: CI 3030 Information Journalism

Credits: 6 Level: Intermediate Knowledge area: Journalism

CI 3055 JOURNALISM SPECIALIZED IN RADIO AND TELEVISION

Analyzing the journalistic styles in radio and television producing interviews, reports, notes, chronicles, documentaries and vox populi both live as well as recorded, according to the technical characteristics that each media requires.

Requirement:

Credits: 6 Level: Advanced Knowledge area: Journalism

CI 3060 JOURNALISM MULTIMEDIA

Covering the journalistic facts and adapt the information according to the characteristics of the different communications media: press, radio, television and Internet.

Requirement: CI 3055 Journalism Specialized in Radio and Television

Credits: 6 Level: Advanced Knowledge area: Journalism

CI 3065 GROUP COMMUNICATION

Applying the knowledge and skills for communication in the different groups and learn to interrelate as a member in them in different roles, as for example facilitator or change agent to generate improvements in their operations.

Requirement: None

Credits: 6 Level: Intermediate Knowledge area: Business Communication

CI 3070 ADVERTISING AND MARKET

Learning and being able to apply profitably the advertising and market processes in the business world.

Requirement: None

Credits: 6 Level: Advanced Knowledge area: Advertising

CI 3075 CREATIVITY

Learning and mastering the main theoretical and didactic content of games in relation to the psychic development of Creativity as a creator and innovator element.

Requirement: None

Credits: 6 Level: Advanced Knowledge area: Advertising

Accounting Department

CO 1050 INTRODUCTION TO FINANCE

Understanding the content of financial information, its relevance and usefulness in decision making in the correct business administration and in evaluation of its performance. Making the relation of the effect that the main transactions have in a company with the content of the financial statements.

Requirement: None

Credits: 6 Level: Basic Knowledge Area: Financial Accounting

CO 1210 ADMINISTRATIVE ACCOUNTING

Applying the different tools that Administrative Accounting offers for planning and control.

Requirement: CO 3200 Decision Making Costs.

Credits: 6 Level: Intermediate Knowledge Area: Administrative Accounting

CO 2210 ADVANCED ACCOUNTING

Analyzing, evaluating and applying the accounting rules for valuation, presentation and disclosure related to permanent investment in stocks.

Requirement: CO 3130 Intermediate Accounting II

Credits: 6 Level: Advanced Knowledge Area: Financial Accounting

CO 2330 AUDITING

Analyzing and applying the general Auditing theory, evaluation of internal control, planning, procedures, work documents, revisions, selective tests and standards for auditing, active examination, liabilities and capital, earnings and expenses, Auditing closing, kind of financial dictaminations, the general administration of fiscal federal Auditing and its relation with the independent public accountant.

Requirement: CO 3130 Intermediate Accounting II

Credits: 6 Level: Intermediate Knowledge Area: Auditing

CO 2350 FINANCIAL MANAGEMENT

Understanding what is the capital structure of a new enterprise and how the optimum level is determined in order to optimize the financing resources.

Requirement: CO 3300 Administration and Financial Analysis.

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 2370 SEMINAR ON FINANCIAL ACCOUNTING

Integrating, through the analysis of accounting standards news bulletins, practical case discussion and research, the knowledge acquired before in the financial accounting area.

Requirement: CO 2210 Advanced Accounting y Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: Financial Accounting

CO 2390 SEMINAR ON ADMINISTRATIVE ACCOUNTING

Integrating through investigation, field work, exhibitions and development of practical cases, the behaviors acquired in administrative accounting; developing analysis skills applying tools from the IT area and control that support business administration in the appropriate decision making.

Requirement: CO 3230 Strategic Cost Management y Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge Area: Administrative Accounting

CO 2450 FINANCIAL EVALUATION FOR INVESTMENT PROJECTS

Learning, understanding and applying the different basic knowledge of financial mathematics, in order to solve practical problems related to such knowledge.

Understanding the concept of Value of Money in time and learning how to analyze, evaluate and select investment projects through the application and use of different financial tools.

Requirements: CO 1050 Introduction to Finance y (FM 1260 Differential and Integral Calculus ó FM1250 Integral Calculus ó AD 1291 Quantitative methods for decision making).

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 2530 SEMINAR ON AUDITING

Carrying out a complete audit of the financial statements including the presentation of a report, emphasizing practical cases of auditing in automated systems. understanding and studying the process followed in an audit for financial statements and other kind of revisions. Analyzing the different opinions issued by the auditor because of his work. Develop auditing practices.

Requirement: CO 2330 Auditing

Credits: 6 Level: Advanced Knowledge Area: Auditing

CO 2560 CORPORATE FINANCE

Presenting a presentation at intermediate level of modern theory of Corporate Finance that provides the student the necessary instruments for financial decision making. The global objective is analyzing how the scarce resources are allocated through a price system based in valuing of risk financial instruments, as well as giving the student the knowledge necessary regarding the finance field, related with Investment decisions and Strategies that a company must implement to achieve efficiency in financial resources management, valuation of financial assets, learning and understanding the concepts for Mergers and Acquisitions.

Requirement: CO 3300 Administration and Financial Analysis

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 2570 INTERNATIONAL TREASURY

Learning the main functions of an International Treasurer, starting from the needs of a company that participates in foreign trade and which requires to carry out any of the collection processes of their invoices, investment of their surplus or obtaining financing in international markets; always seeking to maximize yields and minimize the inherent risk in managing financial resources in the different currencies that the company operates, with special importance in the impact of exchange rate fluctuations and interest rates in decision making of the International Treasurer.

Requirement: CO 2350 Financial Management

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 2650 SEMINAR ON FINANCE

Acquiring the necessary skills to generate alternative solutions regarding the financial problems in decision making, through a group of activities such as solution of practical cases, simulation of the financial management of a company through the use of FINGAME, and theoretical and practical research on financial topics. Strengthening integrally the knowledge acquired regarding finance in courses studied previously.

Requirement: CO 3310 Financial Decisions in Investment Projects y CO 2350 Financial Management

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 2740 INTERNATIONAL ACCOUNTING

Learning the accounting and regulatory implications that a Mexican company is subject to when carrying out operations at an international level and/or having values registered in the international market. Comparing the main differences in accounting standards in an international environment.

Requirement: CO 2210 Advanced Accounting

Credits: 6 Level: Advanced Knowledge Area: Financial Accounting

CO 2750 SEMINAR ON CORPORATE FINANCE

Integrating, through investigation, field work, exhibitions and development of practical cases, the acquired knowledge in Corporate Finance, besides developing the skill for decision making in specific financial planning areas, capital budgeting, valuation of liabilities and stock, mergers and acquisitions.

Requirement: CO 2560 Corporate Finance

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 2751 FINANCIAL PLANNING MODELS

Providing the student the basic tools required for decision making in a logical and rational manner, developing and using economic and financial models that enable evaluating the current situation of the company and the effect of the decisions on profitability and financial soundness, using the application of computer packages.

Requirements: CO 3300 Administration and Financial Analysis o SC1340 Software Development Focused to Objects

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 2810 GUIDED PROFESSIONAL PRACTICE LFI

Linking the student with professional development in agreement with the Work field.

Requirement: Having completed 216 Credits accumulated

Credits: 6 Level: Intermediate

Knowledge Area: Final courses and practices

CO 2850 INVESTMENT PORTFOLIO MANAGEMENT

Learning and acquiring the basic tools for theory and investment portfolio management and strengthen in the student the necessary skills to apply these tools. The course concentrates in the mechanics of maximizing yield and minimizing risk via diversification, stock selection, investment terms and risk. Developing a rational and analytical method that assists them in making investment decisions.

Requirements: (CO 3300 Administration and Financial Analysis o EC 2660 Exchange Finance) y FM 1240 Matrix Algebra and Lineal Prog.

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 3110 BASIC ACCOUNTING

Handling the record and classification of transactions of a company until the elaboration of financial statements.

Requirement: CO 1050 Introduction to Finance

Credits: 6 Level: Basic Knowledge Area: Financial Accounting

CO 3120 INTERMEDIATE ACCOUNTING I

Analyzing and applying the accounting rules for evaluation, presentation and disclosure corresponding to each one of the lines integrating the Asset section in a general balance, evaluating each one of the alternatives presented in some of the lines.

Requirement: CO 3110 Basic Accounting

Credits: 6 Level: Intermediate Knowledge Area: Financial Accounting

CO 3130 INTERMEDIATE ACCOUNTING II

Analyzing and applying the pertinent accounting standards for the correct valuation, presentation and disclosure of the lines integrating the Liabilities and Equity sections in the general balance.

Requirement: CO 3120 Intermediate Accounting I

Credits: 6 Level: Intermediate Knowledge Area: Financial Accounting

CO 3200 DECISION MAKING COSTS

Applying the costs information for planning, control and decision making, with the objective of increasing profitability of the business through the development of competitive advantages.

Requirement: CO 1050 Introduction to Finance

Credits: 6 Level: Basic Knowledge Area: Administrative Accounting

CO 3210 COSTS SYSTEMS

Differentiating and applying the different costing systems used in manufacturing companies depending on their productive process.

Requirement: CO 3200 Decision Making Costs

Credits: 6 Level: Intermediate

Knowledge Area: Administrative Accounting

CO 3230 COSTS STRATEGIC MANAGEMENT

Analyzing the different tools offered in accounting to manage strategically the costs in which companies incur in an environment of competitiveness.

Requirement: CO 1210 Administrative Accounting

Credits: 6 Level: Advanced

Knowledge Area: Administrative Accounting

CO 3240 PERFORMANCE EVALUATION SYSTEMS

Designing the process for the implementation of strategies in enterprises and other social organizations, focusing in the process creation and value management.

Requirement: AD 1351 Competitive Strategy

Credits: 6 Level: Intermediate

Knowledge Area: Administrative Accounting

CO 3250 FINANCIAL INFORMATION SYSTEMS

Defining and evaluating financial information systems that support the strategic decision making, reviewing the internal control processes.

Requirements: AD 1351 Competitive Strategy o SC1340 Software Development Focused to Objects

Credits: 6 Level: Advanced

Knowledge Area: Administrative Accounting

CO 3300 ADMINISTRATION AND FINANCIAL ANALYSIS

Analyzing the information comprised in the financial statements with the purpose of making a diagnosis of the company. Applying the main tools related with work capital management.

Requirement: CO 1050 Introduction to Finance y Having completed 72 credits

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3310 FINANCIAL DECISIONS IN INVESTMENT PROJECTS

Integrating by means of practical cases, the knowledge acquired in financial decisions to analyze, evaluate financially, and select investment projects..

Requirements: CO 2450 Financial Evaluation of Investment Projects y FM 1260

Differential and Integral Calculus

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3320 FINANCIAL MARKETING

Applying the different tools offered by finance and administrative accounting to strategically manage the Marketing activities.

Requirements: CO 3200 Decision Making Costs y CO3300 Administration and Financial Analysis

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3330 FINANCIAL RISK MANAGEMENT

Providing the fundamental knowledge that allows quantifying the risk to which the company is exposed and mainly in operating cash flows. Likewise, it tries to explain the concept and methodology of derivate instruments so the student may know their good things and may apply them in daily operations in the business and also learn how to use these instruments to design coverage strategies and thus be able to avoid any negative impact that affects the business operations.

Requirements: CO 2570 International Treasury y EC 1550 International Finance.

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 3340 FINANCING SOURCES

Understanding and analyzing the different Financing sources that the company has for the short and long term, their implications and obtainment. This shall be done introducing the student in banking brokerage systems, international financing and investment funds.

Requirement: CO 3300 Administration and Financial Analysis

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3350 PYMES FINANCING SOURCES

Learning the different financing alternatives that are offered through PYMES in the financial system, as well as the legal framework that governs them; with the purpose of financing specific projects. Topics such as the following will be covered: financial institutions, instruments and their features, the operation basis.

Requirement: AD 1640 Business Opportunities for Entrepreneurs

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3360 FINANCING ENGINEERING

Examine the real applications of financing engineering to create and redesign financial instruments, to decrease financing costs, increase profitability and ensure entering flows. Analyze future contracts and using these financial products in the financial risk management.

Requirement: CO 2570 International Treasury

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 3370 FINANCIAL INFORMATION SYSTEMS TECHNOLOGY

Distinguish the applications of Information Technology in the finance area, recognizing the skills required through the analysis of the complexity of IT in the solution of case study cases that the students carry out in teams with a group discussion that will enrich their perspective of the situation of IT in the business environment. Verifying the applicability of the different computer packages in finance to the reality of the companies in Mexico through field research, analyzing the problems or the companies in the area presenting their proposals for a solution.

Requirements: CO 3300 Administration and Financial Analysis o SC1340 Software Development Focused to Objects

Credits: 6 Level: Intermediate Knowledge Area: Finance

CO 3380 FINANCIAL EVALUATION OF INTERNATIONAL INVESTMENT PROJECTS

Applying the knowledge and techniques for investment projects assessment where the study of the following has to be considered: country risk, the international financial markets, investment alternatives and financing and economic analysis, so there may be conditions to assess the financial feasibility of an international business project.

Requirement: CO 2450 Financial Evaluation of Investment Projects

Credits: 6 Level: Advanced Knowledge Area: Finance

CO 3400 GUIDED PROFESSIONAL PRACTICE LCF

Linking the student with the development of professional practices in agreement with the current Work field.

Requirement: Having completed 216 credits

Credits: 6 Level: Intermediate Knowledge Area: Final Courses and Practices

CO 3410 FINAL EVALUATION PROGRAM LCF I

Facilitate and strengthen in the student the process for integration of the theoretical and practical acquired during the development of the degree.

Requirement: Having completed 252 credits.

Credits: 6 Level: Advanced

Knowledge Area: Final Courses and Practices

CO 3411 FINAL EVALUATION PROGRAM LCF II

Facilitate and strengthen in the student the process for integration of the theoretical and practical acquired during the development of the degree.

Requirement: CO 3410 Final Evaluation Program LCF I

Credits: 6 Level: Advanced Knowledge Area: Final Courses and Practices

CO 3420 FINAL EVALUATION PROGRAM LFI I

Facilitate and strengthen in the student the process for integration of the theoretical and practical acquired during the development of the degree.

Requirement: Having completed 252 credits

Credits: 6 Level: Advanced Knowledge Area: Final Courses and Practices

CO 3421 FINAL EVALUATION PROGRAM LFI II

Facilitate and strengthen in the student the process for integration of the theoretical and practical acquired during the development of the degree.

Requirement: CO 3420 Final Evaluation Program LFI I

Credits: 6 Level: Advanced Knowledge Area: Final Courses and Practices

CO 3500 CERTIFICATION ORIENTATION LCF

Providing the necessary tools so that by the end of the academic program, the student may take the certification exams appropriate for the profession.

Requirement: Having completed 288 credits accumulated

Credits: 6 Level: Advanced Knowledge Area: Final Courses and Practices

CO 3510 CERTIFICATION ORIENTATION LFI

Providing the necessary tools so that by the end of the academic program, the student may take the certification exams appropriate for the profession.

Requirement: Having completed 288 credits

Credits: 6 Level: Advanced

Knowledge Area: Final Courses and Practices

CO 3600 TAXES FOR ORGANIZATIONS

Understanding, interpreting and applying the corresponding fiscal laws for organizations resident in Mexico, for the appropriate compliance of their fiscal obligations.

Requirements: DE 1610 Fiscal law y CO 1050 Introduction to Finance

Credits: 6 Level: Intermediate Knowledge Area: Fiscal

CO 3610 TAXES FOR INDIVIDUALS

Learning and applying the different fiscal provisions applicable for individuals in the different activities, to meet their obligations as taxpayers. Likewise, learning some specific taxes applicable as individuals as well as organizations such as the case of the Value Added Tax, payroll tax and the worker-employer fees to the IMSS.

Requirement: CO 3600 Taxes for Organizations

Credits: 6 Level: Intermediate Knowledge Area: Fiscal

CO 3620 INTERNATIONAL TAXES

Analyzing in depth the fiscal knowledge acquired and apply then in a fiscal planning for taxpayers, for tax optimization based on the national and international fiscal provisions.

Requirement: CO 3610 Taxes for Individuals

Credits: 6 Level: Advanced Knowledge Area: Fiscal

CO 3700 SEMINAR ON FINANCE APPLIED TO TOURISM

Understanding and applying the different concepts for finances in an organization dedicated to Tourism and to the Restaurant industry. The intention is for the student to acquire the necessary skills for financial decision making in organizations in the service field.

Requirement: CO 2450 Financial Evaluation for Investment Projects

Credits: 6 Level: Advanced Knowledge Area: Finance

Department of Social Sciences**CS 1110 GENERAL SOCIOLOGY**

Learning and analyzing the main concepts and methods in sociology and apply them to current concrete problems.

Requirement: None

Credits: 6 Level: Basic

CS 1150 INTRODUCTION TO ANTHROPOLOGY

To give a general overview on the problematic of the evolution of man.

Requirement: None

Credits: 6 Level: Basic

CS 1190 ARCHEOLOGY

Giving an overview of what archeology is and how it has been performed and is currently performed in Mexico.

Requirement: None Credits: 6 Level: Basic

CS 1210 GEOGRAPHY OF MEXICO

Offering the basic knowledge of Mexican geography.

Requirement: None Credits: 6 Level: Basic

CS 1230 SOCIAL ANTHROPOLOGY

Making the student familiar with the concepts and theories developed in the anthropology discipline.

Requirement: None Credits: 6 Level: Basic

CS 1270 THEORETICAL POLITICS

Analyzing the theoretical foundations of political sciences.

Requirement: None Credits: 6 Level: Basic

CS 1290 METHODS AND TECHNIQUES FOR SOCIAL SCIENCES RESEARCH

Giving the student the theoretical and practical elements of the research process in order for the student to be able to elaborate research projects that imply the process of scientific knowledge.

Requirement: None Credits: 6 Level: Basic

CS 1310 MEDICAL SOCIOLOGY

Understanding the importance of medical sociology through the study of the health-illness process and the group of social factors that participate, as well s the organizational and social structure in the health field.

Requirement: CS 1110 Credits: 6 Level: Basic

CS 1350 SOCIOLOGY OF CONSUMPTION

Providing a general overview on the sociologic conceptual framework and the cultural characteristics of Mexicans.

Requirement: None Credits: 6 Level: Basic

CS 1390 URBAN SOCIOLOGY

Providing a theoretical-methodological structure that allows the knowledge of the complex, processes and social agents that interact in urban problems.

Requirement: None Credits: 6 Level: Basic

CS 1410 MEDICAL ANTHROPOLOGY

Learning what anthropology and medical anthropology are and its applications in our community.

Requirement: None Credits: 6 Level: Basic

CS 1450 URBAN ANTHROPOLOGY

Understanding the dynamics of the inhabitants in the cities from a theoretical perspective.

Requirement: None Credits: 6 Level: Basic

CS 1510 POLITICAL GEOGRAPHY

Paying attention to the distribution of the countries and their economic interrelation.

Requirement: None Credits: 6 Level: Basic

CS 1530 WORLD HISTORY UNTIL 1500

Understanding the historical character of capitalist society based on the analysis of the pre-capitalistic societies, particularly the feudal society, its crisis and the appearance of capitalistic germs.

Requirement: None Credits: 6 Level: Basic

CS 1550 WORLD HISTORY AFTER 1500

Studying the world processes that enabled the formation of the current world.

Requirement: CS 1530 Credits: 6 Level: Basic

CS 1570 POLITICAL HISTORY OF THE UNITED STATES (1763–1850)

Giving the students an understanding of the establishment of the United States observing the conditions and social, economic and political changes.

Requirement: None Credits: 6 Level: Basic

CS 1590 HISTORY OF AMERICAN THINKING

Offering an overview of the Americans thinking and values.

Requirement: None Credits: 6 Level: Basic

CS 1610 ORGANIZATION OF THE GLOBAL SYSTEM

Describing and explaining the different dimensions of the global system and examining some of its implications in countries and regions.

Requirement: None Credits: 6 Level: Basic

CS 1630 INTERNATIONAL RELATIONS

Handling of common conflicts in the analysis of international relations.

Requirement: None Credits: 6 Level: Basic

CS 1650 WORLD POLITICS

Analyzing the work structure in terms of politics.

Requirement: None Credits: 6 Level: Basic

CS 1710 POLITICAL HISTORY OF CANADA

Showing the ethnic and cultural diversity in Canada based on its history.

Requirement: None Credits: 6 Level: Basic

CS 1730 HISTORY OF LATIN AMERICA I

Providing the students the information and interpretation of the world and local processes and mechanisms which led to the creation of Latin American colonial societies; as well as the phenomenon that, after the independence facilitated in certain regions of Latin America in the XIX Century the transition toward the creation of capitalistic societies.

Requirement: None Credits: 6 Level: Basic

CS 1750 HISTORY OF LATIN AMERICA II

Providing the students with the information necessary to interpret the forms and modalities that the development of capitalism at a world level took and how it impacted economically, socially and politically the Latin American countries during the XX Century.

Requirement: None Credits: 6 Level: Basic

CS 1770 MEXICAN COLONIAL HISTOGRAPHY

Histographic analysis of the main texts written during the long Mexican colonial period.

Requirement: None Credits: 6 Level: Basic

CS 1790 HISTOGRAPHY IN THE XIX AND XX CENTURIES IN MEXICO

Studying the main trends in thinking in Mexico in the XIX and XX Centuries.

Requirement: None Credits: 6 Level: Basic

CS 1810 SOCIOLOGY OF EDUCATION

Analyzing the social, cultural, political, historical and economic limitations that have hindered the development of women and identify the options existing.

Requirement: CS 1110 Credits: 6 Level: Basic

CS 1830 ANALYSIS OF POLITICAL GROUPS

Learning the political situation in which the organized social groups with the greatest influence in the dynamics of national power develop.

Requirement: None Credits: 6 Level: Basic

CS 1870 INDUSTRIAL ANTHROPOLOGY

Offering an explanation regarding the impact in society after industrialization. There are some explanations of changes in the organization based on new work forms.

Requirement: None Credits: 6 Level: Basic

CS 1910 HISTORIOGRAPHY OF REVOLUTIONARY AND POST-REVOLUTIONARY MEXICO

Histographic examination of the main texts published during the revolution and the post-revolutionary stage.

Requirement: None Credits: 6 Level: Basic

CS 2010 UNITED STATES POLITICAL HISTORY (1850–1990)

Focuses its attention in the confirmation of the states and the diplomatic relations with other countries in the Western world.

Requirement: None Credits: 6 Level: Basic

CS 2030 POLITICAL ANALYSIS TECHNIQUES

Understanding the objective of the key factors and forms in the political struggle.

Requirement: CS 1270 Credits: 6 Level: Basic

CS 2050 ANALYSIS OF COMPARED POLITICS

The elements that make the comparative analysis in the political environment are provided. Based on a historical review of the theoreticals in politics, the political power is studied.

Requirements: CS 1270 Credits: 6 Level: Basic

CS 2070 THE METHOD AND TECHNIQUE FOR POLITICAL ANALYSIS

Understanding the studying mechanisms and the fundamental theoretical notions of political Sciences.

Requirement: CS 1270 ó CS 3155 Credits: 6 Level: Intermediate

CS 2090 UNITED NATIONS MODEL

Preparing the students so they are able to discuss the world order problems.

Requirements: CS 1650 ó CS 3100 Credits: 6 Level: Basic

CS 2111 SEMINAR ON AMERICAN HISTORY

Giving the students a better understanding of the main characteristics and ways of thinking of diverse people in the United States of America.

Requirements: CS 1570 y 2010 Credits: 6 Level: Basic

CS 2130 INTERNATIONAL ORGANIZATIONS

Identifying the problems faced by the international organizations as well as learning the tools for decision making in effective handling of such problems.

Requirements: CS 1650 Credits: 6 Level: Basic

CS 2150 INTERNATIONAL NEGOTIATIONS

Understanding the negotiation process identifying the integrating elements, with the framework of an international environment.

Requirement: None Credits: 6 Level: Basic

CS 2160 FOREIGN TRADE PROMOTION

When finishing the course, the students shall be able to recognize the socio-economic characteristics of the countries in Southeast Asia, their relationship with Mexico and the existing cultural differences for the development of new businesses.

Requirement: None Credits: 6 Level: Basic

CS 2170 INTERNATIONAL COMMERCIAL ARBITRAGE

Introducing the student into the field of International Agreements.

Requirement: None Credits: 6 Level: Basic

CS 2180 MODELS FOR INTERNATIONAL NEGOTIATION AND AGREEMENTS

Providing the student, independently of his course of study, a global and historical perspective of the political and economic order dominating by the end of the XX Century.

Requirement: None Credits: 6 Level: Basic

CS 2190 SEMINAR ON INTERNATIONAL NEGOTIATIONS

Making the student familiar with the Negotiation process and develop their negotiating skills at an international level, providing a global vision of the cultural differences that affect the negotiation styles and practices between the main regions of the world.

Requirement: None Credits: 6 Level: Basic

CS 2192 SEMINAR ON INTERNATIONAL CONTRACTING (INTERCULTURAL ASPECTS)

Showing the students the mechanism for international contracting.

Requirement: None Credits: 6 Level: Basic

CS 2210 SURVEY RESEARCH

Providing the student theoretical elements on research on social phenomena so they may apply them specifically to the measurement through application of surveys.

Requirements: CS 1110 Credits: 6 Level: Basic

CS 2270 ORGANIZATIONAL SOCIOLOGY

Understanding the basic principles on which the organizations are structured, emphasizing the human aspect in the context of the organization.

Requirements: CS 1110 Credits: 6 Level: Basic

CS 2340 POLITICAL PROPAGANDA

Studying the different communication mass media and its influence in political activities. The focus of attention is in the way in which the media impact the decisions in the political activities.

Requirement: None Credits: 6 Level: Basic

CS 2380 POLITICAL PARTIES

Analyzing the history of the political parties, strategies of political formation and the struggle for power. Based on the comparative method, we try to establish which are the fundamental elements of a political party.

Requirement: None Credits: 6 Level: Basic

CS 2410 UNION MOVEMENT IN MEXICO

Studying the unions, their organization and the role they play in the company.

Requirement: None Credits: 6 Level: Basic

CS 2440 PUBLIC POLITICS

Defining the private politics and public politics based on the establishment of a project for a nation and the action fields: political, economic, social, education, and environmental.

Requirement: None Credits: 6 Level: Basic

CS 2460 INSTITUTIONS AND POWER FACTORS

This course will examine several theoretical and methodological approaches regarding the power factors. Among the issues to explore, the problems of collective behavior, social classes and ideology..

Requirement: None Credits: 6 Level: Basic

CS 2480 POLITICAL ACTIVITY PROFILE

A course with special attention to issues such as political violence and social change. The role of the social communication media, entrepreneurial participation, civil rights and political leadership.

Requirement: None Credits: 6 Level: Basic

CS 2430 ANTHROPOLOGY IN NORTH AMERICA

Studying the North American culture from its cultural diversity

Requirements: CS 1230 Credits: 6 Level: Basic

CS 2450 ANTHROPOLOGY IN EUROPE

Offering an overview of the historical-cultural aspects of Continental Europe.

Requirement: None Credits: 6 Level: Basic

CS 2470 CULTURE AND SOCIETIES IN ASIA

Introducing the student to the cities and cultures in the South, Southeast and East of Asia.

Requirements: CS 1230 Credits: 6 Level: Basic

CS 2490 ANTHROPOLOGY OF AFRICA AND MIDDLE EAST

Providing the student an overview of the culture in Africa and Middle East.

Requirements: CS 1230 Credits: 6 Level: Basic

CS 2510 GUIDED PROFESSIONAL PRACTICE LEI I

Placing the student near the work environment in an organization related to the studying area, and consolidating the skills acquired in his degree.

Requirements: Having completed 180 credits

Credits: 6 Level: Intermediate

CS 2520 GUIDED PROFESSIONAL PRACTICE LEI II

Placing the student near the work environment in an organization related to the studying area, and consolidating the skills acquired in his degree.

Requirements: CS 2510 Credits: 6 Level: Advanced

CS 2530 GUIDED PROFESSIONAL PRACTICE LEI III

This course has the objective of placing the student near the work environment in an organization related to the studying area and consolidating the skills acquired during the degree.

Requirements: CS 2520 Credits: 6 Level: Advanced

CS 2830 POLITICAL PARTIES AND ELECTORAL SYSTEMS

An intensive course on history of the political parties, strategies of political formation and the struggle for power. Based on the comparative method, trying to establish which are the fundamental elements of a political party.

Requirement: CS 3055 Credits: 6 Level: Intermediate

CS 2860 GUIDED PROFESSIONAL PRACTICE LPA

Placing the student near the work environment in an organization related to the studying area, and consolidating the skills acquired in his degree.

Requirement: None Credits: 6 Level: Basic

CS 2900 FISCAL POLITICS

Studying the elements that must be considered in the creation and application of fiscal policies. The key area is in the explanation, prediction and design of fiscal policies.

Requirement: None Credits: 6 Level: Basic

CS 2910 DESIGN OF PUBLIC PROJECTS

Deals intensively with design and public project management with an emphasis in the Federal Level, including the role of bureaucracy in political work.

Requirement: None Credits: 6 Level: Basic

CS 2920 EVALUATION OF PUBLIC PROJECTS

Evaluating the development of projects through statistical techniques with a very special emphasis in the effect both local as well as regional.

Requirement: None Credits: 6 Level: Basic

CS 2950 FINAL EVALUATION PROGRAM LEI

Providing the concepts, tools and fundamental skills, as well as the practical application, to situations linked with the study of international relations. The student will have the opportunity to develop the practical activities, supported in the knowledge acquired in the different stages of the professional course of study, obtaining a better perspective of the problems that affect the international organizations currently.

Requirement: None Credits: 6 Level: Advanced

CS 2951 FINAL EVALUATION PROGRAM LPA

ding the concepts, tools and fundamental skills, as well as the practical application, to situations linked with the study of political sciences The student will have the opportunity to develop the practical activities, supported in the knowledge acquired in the different stages of the professional course of study, obtaining a better perspective of the problems that affect politics. Requirement: None Credits: 6 Level: Advanced

CS 3000 SEMINAR ON MEXICAN ARCHEOLOGY

Based on field and laboratory work trying to train in some archeology techniques.

Requirement: CS 1190 Credits: 6 Level: Basic

CS 3005 INVESTIGATION SEMINAR: HISTORIANS AND ARCHIVES IN MEXICO

The objective is helping the students in the elaboration of their research protocol, revision of their advance and final presentation.

Requirement: None Credits: 6 Level: Intermediate

CS 3010 ENVIRONMENTAL SOCIOLOGY

Offers an overview of the social scientists' efforts in facing the environmental issues and the search for solutions to protect the planet.

Requirement: CS 1110 Credits: 6 Level: Basic

CS 3015 SOCIOLOGY OF THE FUTURE

This course seeks to study the future systematically. The alternative futures are explored with the purpose of creating and giving the dimension of the desire future for society. The main futurologists and their proposals are analyzed.

Requirement: None Credits: 6 Level: Basic

CS 3020 CULTURE SOCIOLOGY

Introduction to the roots with intellectuals and to the historical development of the cultural studies regarding identity, cognition and politics. This sociologic trend is fundamental in understanding what is happening with culture globalization and the new industrial cultures.

Requirement: None Credits: 6 Level: Basic

CS 3025 SOCIO-ECONOMIC STRUCTURE IN MEXICO

Learning the economic and political situation where the organized social groups perform both formally and informally who have an influence in the dynamics of national power.

Requirement: None Credits: 6 Level: Intermediate

CS 3030 COLLECTIVE BEHAVIOR AND SOCIAL MOVEMENTS

Explaining the trends of the mass movements in their different identities: social struggles, respect for human rights, special groups, ecology movements. The global increase of this kind of movements is in the target of all governments who supervise the citizens' security.

Requirement: None Credits: 6 Level: Intermediate

CS 3035 SOCIETY AND INFORMATION ACCESS

Studying the mechanisms developed to learn the information of the public institutions to which society should have access. The subject is new and requires all the citizens to be informed of this fundamental right.

Requirement: None Credits: 6 Level: Advanced

CS 3040 HISTORY THEORY

Analyzing the interpretations of history from different historiographic points of view: idealism, and materialism, for example, as well as understanding the importance of the study from a determined historical perspective.

Requirement: None Credits: 6 Level: Basic

CS 3045 INTRODUCTION TO HISTORIOGRAPHY

Learning the classical texts of the most distinguished historians: Herodotus, Ibn Jaldun, Tocqueville, Braudel, Le Goff and Thomson.

Requirement: CS 3040 Credits: 6 Level: Intermediate

CS 3050 HISTORY OF THE UNITED STATES OF AMERICA

Giving the students a comprehension of the initiation of the United States observing the conditions and social, economic and political changes.

Requirement: None Credits: 6 Level: Intermediate

CS 3055 HISTORY OF POLITICAL THEORY

Analyzing the fundamentals of classical authors for political theory such as Plato and Aristotle, Machiavelli, Hobbes, Locke, Rosseau and Smith.

Requirement: None Credits: 6 Level: Basic

CS 3060 HISTORY OF MEXICAN VICEROYALTY

Historiographical analysis of the main texts written during the Colonial Mexican period particularly the penetration of the Western European culture in America.

Requirement: None Credits: 6 Level: Basic

CS 3065 HISTORY OF INDEPENDENT MEXICO

Studying the main trends in Mexican thinking during the XIX and XX Centuries. Independence opened a new world with great possibilities to our country. Nevertheless, since the beginning Mexico is circumscribed by international context.

Requirement: CS 3060

Credits: 6 Level: Basic

CS 3070 MEXICO XX CENTURY

The work is on an important topic according to the group interests. With the Mexican Revolution, Mexican thinkers discussed about the being and doing of Mexicans. From Manuel Gamio to Octavio Paz.

Requirements: CS 3060 y CS 3065

Credits: 6 Level: Intermediate

CS 3075 HISTORY OF FOREIGN AFFAIRS IN MEXICO

Studying the main doctrines in foreign policy in Mexico according to political and economic interests in different periods in the national history.

Requirement: None Credits: 6 Level: Intermediate

CS 3080 NORTH AMERICAN STUDIES SEMINAR

This course offers an overview of North American thought and values as well as it studies the way society and culture in this part of the world was structured and formed.

Requirement: CS 3155 Credits: 6 Level: Intermediate

CS 3085 HISTORY OF LATIN AMERICA AND CARIBBEAN

Providing the students the necessary information to interpret the forms and modalities that the development of capitalism at a world level took, and particularly its impact economic, social and political in Latin American countries along the XX Century.

Requirement: None Credits: 6 Level: Intermediate

CS 3090 HISTORY OF SCIENCE AND TECHNOLOGY

Promoting in the student a critical and reflexive attitude on the role that the sciences have played in society, as well as the local-global impact that some have had and the advances and important technology innovations.

Requirement: None Credits: 6 Level: Basic

CS 3095 INTERNATIONAL RELATIONS THEORY

Handling the common concepts and theories common in the analysis of international relations. History and development of the fundamental concepts .

Requirement: None Credits: 6 Level: Basic

CS 3100 CURRENT SCENARIOS AND WORLD POLITICS

Analyzing the new world order in function of the political activity in different countries and regions.

Requirement: None Credits: 6 Level: Basic

CS 3105 ECONOMIC STRUCTURE AND AMERICAN INTEGRATION (ALCA)

Addressing the history and development of ALCA is a matter that is in the diplomatic agenda of the countries in the American Continent.

Requirement: None Credits: 6 Level: Basic

CS 3110 AMERICAN CONTEMPORARY ISSUES

This course will offer a panoramic view of the American topics that challenge this Region.

Requirement: None Credits: 6 Level: Advanced

CS 3115 BORDERS, MIGRATION AND REGIONAL DEVELOPMENT (American Continent)

Offering an overview on how the regions are changing due to factors of migration to the North.

Requirement: None Credits: 6 Level: Advanced

CS 3120 DIPLOMATIC AND CONSULAR PROTOCOL

Studying the basic principles of diplomacy and the way to negotiate among the States, from the International Legal framework.

Requirement: None Credits: 6 Level: Advanced.

CS 3125 INTERNATIONAL ORGANIZATIONS MANAGEMENT AND POLITICS

Identifying the problems faced by the international organizations as well as learning the tools for decision making in the effective and efficient handling of such problems.

Requirements: CS 3095 Credits: 6 Level: Advanced

CS 3130 SEMINAR ON INTERNATIONAL ISSUES

This course deals with the New International Issues such as terrorism, war technology, the urban explosion, migration, nuclear war and so on.

Requirement: CS 3100 Credits: 6 Level: Advanced

CS 3135 EUROPEAN INTEGRATION

Offering an overview of the historic-cultural aspects of Europe and its main institutions. In the end of the XX Century and beginning of XXI.

Requirements: 144 credits Level: Advanced

CS 3140 MIDDLE EAST SOCIETY AND CULTURE

Understanding how the history and culture of the Islamic culture has developed in its relation with other cultures in Middle East.

Requirement: 144 credits Level: Intermediate

CS 3145 ASIAN SOCIETY AND CULTURE

Introducing the student in the study of the cities and cultures of South, Southeast and East Asia.

Requirement: 144 credits Level: Intermediate

CS 3150 AFRICAN SOCIETY AND CULTURE

Providing the student a global vision of the culture in Africa and Middle East.

Requirement: CS 3095 Credits: 6 Level: Intermediate

CS 3155 INTRODUCTION TO POLITICAL SCIENCES

The main theories, methodologies and basic tools in political science are studied.

Requirement: None Credits: 6 Level: Basic

CS 3160 CONTEMPORARY POLITICAL THEORY

Studying the Contemporary scholars and their participations to political science (Sartori, Rawls).

Requirement: CS 3155 ó CS 3015

Credits: 6 Level: Basic

CS 3165 MEXICAN POLITICAL SYSTEM

Analyzing the configuration of the Mexican Political System in its different institutions: congress, government, parties, civil society

Requirement: None Credits: 6 Level: Intermediate

CS 3170 SEMINAR ON MEXICAN FOREIGN POLITICS

Analyzing the key diplomatic positions of Mexico and the other countries.

Requirement: CS 3075 Credits: 6 Level: Advanced

CS 3175 POLITICAL MARKETING

Understanding the objective of the key factors and forms in the political struggle; campaigns, debates and propositions.

Requirement: 144 credits Level: Advanced

CS 3180 COMPARED POLITICS

Offering the study of the elements that make the comparative analysis possible in the political environment. Based on a historical review of the political scholars, the different dimensions of political power is studied.

Requirement: None Credits: 6 Level: Intermediate

CS 3185 THEORY OF THE STATE AND PUBLIC ADMINISTRATION

Learning the theories regarding the establishment of the State and its impact in the administration of public properties and government structure.

Requirement: CS 3155 Credits: 6 Level: Intermediate

CS 3190 TRANSPARENCY AND ACCOUNTABILITY

Offering a detailed analysis of the kind of corruption that exists in public and private as well as the different alternatives experienced to solve this problem

Requirement: None Credits: 6 Level: Basic

CS 3195 POLITICS OF NATURAL RESOURCES

To have a comprehensive assessment of the natural resources of the world such as oil, water and mineral and the conflict they produce.

Requirement: None Credits: 6 Level: Intermediate

CS 3200 DEVELOPMENT AND GLOBALIZATION ISSUES

The globalization process is changing every region in the world; We need to understand the impact of globalization.

Requirement: CS 3095 Credits: 6 Level: Advanced

CS 3205 SEMINAR ON CONTEMPORARY POLITICAL SCENARIOS

Mainly a discussion on the development of the new scenarios where politics are performed. History, and prospective.

Requirement: None Credits: 6 Level: Advanced

CS 3210 COMPOSITION AND LEGISLATIVE PROCESS

Having the student learn the history and composition of the legislative power as well as the process through which it operates.

Requirement: None Credits: 6 Level: Intermediate

CS 3215 INTERNATIONAL NEGOTIATIONS

To understand the negotiation process in an international scenario as well as to enhance students to acquire those elements. The class will concentrate on the analysis of international topics focusing on practical skills to find ways to solve them.

Requirement: CS 3095

Credits: 6 Level: Intermediate

CS 3220 ARBITRAGE AND INTERNATIONAL MEDIATION

Introducing the student in handling the skills for conflict resolution.

Requirement: CS 3215

Credits: 6 Level: Advanced

CS 3225 CULTURAL ANTHROPOLOGY

The objective is making the student familiar with the conceptual tools developed by anthropologists for the study of other cultures.

Requirement: None. Credits: 6 Level: Basic

CS 3230 PUBLIC ADMINISTRATION FUNDAMENTALS

Understanding the theories regarding establishment of the State and its impact in the administration of public property and government structure.

Requirement: CS 3185 Credits: 6 Level: Intermediate

CS 3235 PUBLIC FINANCE AND BUDGETING

Making the student familiar with the budgeting methodology current in Mexico in the three government levels.

Requirement: CS 3230

Credits: 6 Level: Intermediate

CS 3240 ACQUISITIONS AND PUBLIC WORKS

Presenting an overview of the evolution of the public works in Mexico, their background and who handles them in our country. Review the departments and secretariats involved in this subject: Evaluating the main objectives of public works and the importance of the Department of Public Works, as well as the participation of the community for improvements and their development.

Requirement: CS 3235

Credits: 6 Level: Intermediate

CS 3245 PUBLIC OPERATIONS

The student will learn the relevance and uniqueness of public operations as well as the legal framework by which it is governed in Mexico.

Requirement: CS 3185 Credits: 6 Level: Intermediate

CS 3250 INTERNATIONAL TOPICS

Understanding and analyzing the processes that are being developed at an International level in that moment identifying the different elements and individuals involved.

Requirement: None Credits: 6 Level: Advanced

Department of Architecture and Technology

DA 1475 INDUSTRIAL DESIGN THEORY

Providing the student the information of the history, development and transformation of industrial design to make then sensitive, critics and able to discuss the evolution of the products along time.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Theory and History of Design

DA 1510 STRUCTURAL CONCEPTS

Acquire the principles that govern the structural forms. Exploring the basic principles that are shown in the structures under great stress. Basic design of beams, columns and mechanisms through simulating solutions graphically.

Requirements: DA 3340 Materials Strength

Credits: 6 Level: Basic Knowledge Area: Structures

DA 1555 ANALYSIS OF GRAPHIC DESIGN

Acquire the ability to judge and evaluate the personal and other graphical expressions through the knowledge of the trends and their meaning in the graphic design practice.

Requirements: DA 3150 Principles of Graphic Design.

Credits: 6 Level: Intermediate

Knowledge Area: Theory and History of Design

DA 1635 HISTORY OF MODERN ARCHITECTURE

Learning and understanding the spatial, formal and tectonic transformations in architecture and urbanistics from the humanism age to the reasoning age, (SXIV, SXVII).

Requirements: DA 3205 History of Non-Western Architecture.

Credits: 6 Level: Intermediate

Knowledge Area: Theory and History of Design

DA 1690 CONSTRUCTION COSTS AND BUDGETS

Analyzing the administrative cost in the architectonic work. Developing the ability to establish budgets in a given project. Comparing effort and time against investment. Examining study cases.

Requirements: Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: Construction Management

DA 1830 GRAPHIC EDITING

Developing in the student the ability for style and writing focused to the support of graphical communication processes, so it may be related with the fundamental elements of visual language and is able to create a composition unit.

Requirements: None

Credits: 6 Level: Basic Knowledge Area: Theory and History of Design

DA 2055 PUBLISHING THEORY AND HISTORY

Learning and mastering the theoretical aspects of the printing processes and its history from its beginning to the current moment.

Requirements: None

Credits: 6 Level: Intermediate

Knowledge Area: Theory and History of Design

DA 2075 FUNCTIONS AND MECHANISMS

Comparing and demonstrating the functions and applications of the elements and mechanisms to determine and calculate their selection in product design.

Requirements: DA 3340 Materials Strength.

Credits: 6 Level: Intermediate

Knowledge Area: Functions and Mechanisms

DA 2135 HISTORY OF ARCHITECTURE IN LATIN AMERICA

Analyzing the Mexican architecture as an expression of the sense of identity of a nation. Learning the pre-Hispanic architecture in the feudal New Spain, the European architectural models recreated in New Spain, in the independent Mexico, from the revolutionary to the new Mexican state.

Requirements: DA 1635 History of Modern Architecture

Credits: 6 Level: Advanced

Knowledge Area: Theory and History of Design

DA 2330 PACKING TECHNIQUE WORKSHOP

Training the student in the design and elaboration of packaging for the application of their designs.

Requirements: DA 3395 Packaging and Packing

Credits: 3 Level: Advanced Knowledge Area: Design

DA 2450 GUIDED PROFESSIONAL PRACTICE LDG

Applying in the real work field the criteria, knowledge and responsibilities, formed and acquired through studying the degree.

Requirements: Having completed 252 credits

Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 2470 GUIDED PROFESSIONAL PRACTICE LDI

Applying in the real work field the criteria, knowledge and responsibilities, formed and acquired through studying the degree.

Requirements: Having completed 252 credits

Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 2570 ARCHITECTURAL RESEARCH

Learning the methodology for descriptive research with the use of qualitative tools, applying the analysis and design of constructions and urban spaces. Includes orientation for architectural programs, simulation models, similar and existing studies and the draft project for PEF.

Requirements: Having completed 300 credits

Credits: 6 Level: Advanced

Knowledge Area: Theory and History of Design

DA 3100 BASIC TYPOGRAPHY

Initiating the student in the knowledge of the historical and social development of typography, its development as a communication element, its parts and its meaning in the human language, so the student acquires the basic skills of typographic development.

Requirements: AA 3000 Basic Drawing

Credits: 6 Level: Basic Knowledge Area: Drawing and Design Foundations

DA 3105 ADVANCED TYPOGRAPHY

Experimenting with typographic fonts, developing the critical ability within their use and meaning and acquiring the ability to develop their experimental sources.

Requirements: DA 3100 Basic typography

Credits: 6 Level: Basic Knowledge Area: Drawing and Design Foundations

DA 3110 ILLUSTRATION

Training the student in illustration techniques emphasizing manual sketches focused to representing design concepts, ideas, human figure, the environment, products and materials using different means.

Requirements: AA 3000 Basic Drawing

Credits: 6 Level: Basic Knowledge Area: Drawing and Design Foundations

DA 3115 STUDY OF BASIC IDENTITY DESIGN

Practicing the process for idea abstraction, text integration, forms and color meaning in projects for graphic design oriented to solving problems of visual communication and its pragmatic applications.

Requirements: None

Credits: 9 Level: Basic Knowledge Area: Drawing and Design Foundations

DA 3120 STUDY OF DESIGN CENTERED IN HUMANS

Understanding and applying in the design of the object, the needs that man, as a user, establishes that result in ergonomic requirements for design, for the development of ergonomic products, considering also human factors such as psychological, physical, environmental, cultural, etc. The international anthropometric and ergonomic regulations.

Requirements: Having completed 72 credits, concurrent with DA 3820 Ergonomy

Credits: 9 Level: Basic

Knowledge Area: Drawing and Design Foundations

DA 3125 STUDY OF ARCHITECTURAL ELEMENTS

Learning and exploring the fundamental principles and processes of architectural design, and the components of spatial vocabulary of the natural or build environment.

Requirements: Concurrent with DA 3130 Architectural Representation I y Having completed 72 credits

Credits: 9 Level: Basic

Knowledge Area: Drawing and Design Foundations

DA 3130 ARCHITECTURAL REPRESENTATION I

Learning and applying the standards and techniques of presentation and representation of sketches, architectural prints, constructive and detailed, including the different basic equipment and installations of a construction.

Requirements: AA 3005 Geometry and Perspective and concurrent with DA 3125 Study of Architectural Elements

Credits: 6 Level: Basic

Knowledge Area: Drawing and Design Foundations

DA 3135 ARCHITECTURAL REPRESENTATION II

Applying the representation of prints and architectural drawings, using technical drawing and hand sketches which help in the design process and the communication of ideas to the client. Practicing fast drawing techniques and architectural perspectives, exploring and using ink representation techniques, marker and water color as means of expression and visualization.

Requirements: DA 3130 Architectural Representation I and concurrent to DA 3220 Study of Dwelling Architecture

Credits: 6 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3145 ARCHITECTURE THEORY

Learning and examining the basic design and composition concepts, in the practice of architecture. Understanding the social, economic and cultural factors that have an influence in the architectural work. Understanding the philosophy of this discipline.

Requirements: None

Credits: 6 Level: Basic

Knowledge Area: Theory and History of Design

DA 3150 PRINCIPLES OF GRAPHIC DESIGN

Learning the basic elements of Graphic Design and its correlation with the communication media, emphasizing the basis for visual communication, its language and the methodology of design, providing the student the theoretical basis of the design processes.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Theory and History of Design

DA 3155 ARCHITECTURE MYTH AND SYMBOL

Understanding the mythological structures and interpret the symbolic order, represented in the architecture elements such as shape, space and perception.

Requirements: None

Credits: 6 Level: Basic

Knowledge Area: Theory and History of Design

DA 3175 HISTORY OF GRAPHIC DESIGN

Learning the history of Graphic Design from its beginning as graphical art, its meaning in the social processes and the most representative designers in different ages and tendencies.

Requirements: None

Credits: 6 Level: Basic

Knowledge Area: Theory and History of Design

DA 3180 STUDY OF THE DEVELOPMENT OF NEW PRODUCTS

Promoting the design of new products and improvement of the existing ones that may be required in the future, to satisfy a need or causing it; based in the evolution of technology, needs for consumption and design trends.

Requirements: Concurrent to DA 3185 Product Prospective and Evolution

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3185 PRODUCT PROSPECTIVE AND EVOLUTION

Relating the evolution, trends, and behavior of technology, the market and design of consumption products.

Requirements: Concurrent to DA 3180 Study of the Development of New Products

Credits: 6 Level: Intermediate

Knowledge Area: Theory and History of Design

DA 3190 STUDY OF DESIGN OF PACKAGING AND DISPLAY

Practicing the concepts of graphic design integrated to volumes and its commercial applications, packaging, point of sale material, island, packaging through projects with tri-dimensional design that involve traffic of the audience.

Requirements: AA 3020 Composition and Design 3D

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3195 STUDY OF INFORMATION DESIGN

Practicing the concept of information design through design projects, developing in the student the ability to determine and prioritize the graphical information in infographic products.

Requirements: CI1900 Semiotics

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3200 HISTORY OF WESTERN ARCHITECTURE

Learning and understanding the generating process of space in the Western architecture, the tectonic factor of its shapes and meaning, from pre-history to our days.

Requirements: None

Credits: 6 Level: Intermediate

Knowledge Area: Theory and History of Design

DA 3205 HISTORY OF NON-WESTERN ARCHITECTURE

Learning and understanding the spatial transformations, formal and tectonic of non-Western architecture within its social, historical and cultural framework, from the fall of the Roman Empire up to the peak of the Christian age as universal religion.

Requirements: DA 3200 History of Western Architecture.

Credits: 6 Level: Intermediate Knowledge Area: Theory and History of Design

DA 3220 STUDY OF DWELLING ARCHITECTURE

Developing the skill of providing design propositions through research and development of residential architecture projects with different topics including comparative studies of built works, development of the program, site, shape, technologic considerations and materials.

Requirements: DA 3125 Study of Architectural Elements and concurrent to DA 3135 Architectural Representation II

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3225 STUDY OF SUSTAINABLE PRODUCTS

Developing sustainable products with the limitations imposed by shape, material and environmental impact.

Requirements: Having completed 108 credits

Credits: 9 Level: Intermediate Knowledge Area: Sustainable Development

DA 3230 SUSTAINABLE DESIGN THEORY

Analyzing and studying the social, economic and environmental impact of a sustainable project within a context in particular. Applying the international standards and development processes for products from a sustainable point of view.

Requirements: Concurrent to DA 3225 Study of Sustainable Products

Credits: 6 Level: Intermediate. Knowledge Area: Sustainable Development.

DA 3240 DESIGN PROCESS AND MANAGEMENT

Develop in the student the abilities and technical-administrative processes necessary for the administration and development of professional work in design, costs, budgets, and production control. Requirements: None Credits: 6 Level: Advanced
Knowledge Area: Theory and History of Design

DA 3255 INTEGRAL STUDY OF INDUSTRIAL DESIGN

Applying the theoretical knowledge and design skills in a project with real characteristics, including ergonomic aspects, functional, industrial and commercial feasibility. Developing individual design processes, emphasizing the investigation and application of each one of the aspects that comprise the industrial design. Taking the sustainable design propositions to an advanced level in conceptual, pragmatic and technical fields.

Requirements: Having completed 216 credits

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3260 INTEGRAL STUDY OF ARCHITECTURE

Applying the theoretical concepts and design skills in a project with real characteristics, including architectural urbanistic and constructive elements. Developing individual design processes emphasizing the research and application of each one of the aspects that comprise architecture. Taking the architectural propositions to an advanced level in conceptual, programmatic and technical fields.

Requirements: Having completed 300 credits

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3265 STUDY ON INTEGRAL GRAPHIC DESIGN

Practice in an integral manner all the aspects of graphic design through the high complexity projects that train the student in the basic aspects of element integration and the different system determined by their ability for analyzing communication problems .

Requirements: Having completed 252 credits

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3270 SEMINAR ON ARCHITECTURE

Course with variable content focused to the knowledge of specific aspects of architecture.

Requirements: None

Credits: 6 Level: Advanced Knowledge Area: Theory and History of Design

DA 3290 INTERIOR DESIGN

Understanding the relation between people, space, architecture and the environment. Emphasis in a design methodology based on holistic analysis, considering the program of the needs, human factors, scale, materials and structure. The course is progressive from abstraction level to the final solution with architectural drawings for the construction. Theoretical-practical course with projects at a residential scale up to commercial and institutional including exhibition spaces, furniture, finishing and illumination.

Requirements: DA 3535 Color and Materials in Architectural Interiors

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3300 DIGITAL PHOTOGRAPHY

Developing in the student the ability for photographic composition applied to product and model, through the practice in studio and experimentation in electronic media.

Requirements: DA 3825 Photography Fundamentals

Credits: 6 Level: Basic

Knowledge Area: Advertising Design and Printing

DA 3305 INTERMEDIATE PROJECT STUDY

Exploring non-traditional media that, although has been incorporated in the arts since mid XX Century, it has earned interest in the latest 20 years and it is known under the name of new media.

Requirement: DA 3475 Drawing and Digital Image

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3310 SERIGRAPHY

Understanding and solving the basic problems in printing using for this the Serigraphic technique, so the student may be able to understand the reproduction systems and the development of designs feasible to produce.

Requirements: None

Credits: 6 Level: Intermediate

Knowledge Area: Advertising Design and Printing

DA 3315 STUDY OF PUBLICATIONS DESIGN

Practicing the editorial design concepts through projects that enable experimentation and development of items oriented to facilitating the reading processes and presentation of data, its production and the integration of different visual elements.

Requirements: Having completed 144 credits y DA 3300 Digital Photography

Credits: 9 Level: Intermediate

Knowledge Area: Advertising Design and Printing

DA 3320 STUDY OF ADVERTISING DESIGN

Practicing the advertising design concept through projects that explore and solve promotion problems, events, campaigns in mass media, indirect media and point of sale.

Requirements: Having completed 216 credits

Credits: 9 Level: Advanced

Knowledge Area: Advertising Design and Printing

DA 3325 ELECTRONIC ORIGINALS AND PRE PRESS

Learning and applying the requirements in the elaboration of electronic originals focused to the production of design material, as well as the necessary tools for the elaboration of negatives and/or traditional printing plates or digital.

Requirements: None

Credits: 6 Level: Advanced

Knowledge Area: Advertising Design and Printing

DA 3330 PRINTING TECHNIQUES AND GRAPHIC FINISHING

Learning the different current printing systems, its technical characteristics and the finishing systems and graphic assemblies applied.

Requirements: DA 2055 Publishing Theory and History

Credits: 6 Level: Advanced

Knowledge Area: Advertising Design and Printing

DA 3340 MATERIALS STRENGTH

Learning and interpreting the mechanic behavior of the components and the material which comprise the structure or mechanism of an object. Knowing the mechanical properties of the materials and making the structural analysis to determine the reason for structural failure.

Requirements: Having completed 72 credits

Credits: 6 Level: Basic

Knowledge Area: Structures

DA 3345 CONCRETE STRUCTURES

Developing a competent level in the understanding and evaluation of the behavior of the different concrete Structures and their possibilities in architectural design.

Requirements: DA 1510 Structural Concepts

Credits: 6 Level: Intermediate

Knowledge Area: Structures

DA 3350 STEEL STRUCTURES

Developing a competent level in the understanding and evaluation of the behavior of the different steel Structures and their possibilities in architectural design.

Requirements: DA 1510 Structural Concepts

Credits: 6 Level: Advanced

Knowledge Area: Structures

DA 3360 STUDY OF MECHANISM DESIGN

Develop the functions and mechanisms of the product, experimenting with the materials and the different solutions.

Requirements: Concurrent to DA 2075 Functions and Mechanisms

Credits: 9 Level: Intermediate

Knowledge Area: Functions and Mechanisms

DA 3365 MECHANICAL EXPERIMENTING

Selecting, valuing and supporting the feasibility of use and application of different materials in the development of products.

Requirements: Having completed 142 credits

Credits: 3 Level: Intermediate

Knowledge Area: Functions and Mechanisms

DA 3370 EQUIPMENT AND INSTALLATIONS

Learning and applying the fundamental principles and standards to carry out the installations, illumination systems, the hydraulic equipment, sanitary and electrical of a residential work, its characteristics, constructive processes and possibilities in the architectural design.

Requirements: DA 3135 Architectural Representation II

Credits: 6 Level: Intermediate

Knowledge Area: Installations

DA 3375 ADVANCED INSTALLATIONS

Learning and applying the fundamental principles and standards to carry out the installations, illumination system, hydraulic equipment, sanitary and electricity of commercial and institutional works and the technical criteria on systems, equipment and installations for the environmental control in the building: cooling, warming up, water lines, elevators and waste elimination. Knowing and using the renewable energy sources and its possibilities in the architectural design.

Requirements: DA 3370 Equipment and Installations.

Credits: 6 Level: Intermediate

Knowledge Area: Installations

DA 3395 PACKAGING AND PACKING

Learning and analyzing the needs of the product, materials with their properties and processes and transformation process for the development or selection of the package and container, to satisfy the customer, the manufacturer, and the market, based on standards and international agreements.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Manufacturing Processes y Materials Transformation

DA 3400 MATERIALS TRANSFORMATION

Experimenting the transformation of the different types of commercial materials taking into account their characteristics and physical properties, mechanical and chemical, through handling the machinery and tools from the laboratory.

Requirements: None Credits: 3 Level: Basic

Knowledge Area: Manufacturing Processes y Materials Transformation

DA 3405 PROTOTYPE LABORATORY I

Learning the use of common tools and materials in the development of prototypes for model constructing starting from existing models, accentuating surfaces. Developing the ability to visualize and give shape to objects and spaces via tri-dimensional exploration through experimenting with gypsum, wood, foam, fiber and finishing materials.

Requirements: DA 3400 Materials Transformation.

Credits: 3 Level: Basic

Knowledge Area: Manufacturing Processes y Materials Transformation.

DA 3410 PROTOTYPE LABORATORY II

Developing conceptual models giving an accent in the evolution and transformation of products, shapes and surfaces; via tri-dimensional exploration through experimenting with materials such as ceramics, plastic, metal, glass and finishings.

Requirements: DA 3405 Prototype Laboratory I

Credits: 3 Level: Intermediate

Knowledge Area: Manufacturing Processes y Materials Transformation

DA 3415 CONSTRUCTION MATERIALS

Learning and categorizing the basic construction materials and their properties: such as wood, steel, concrete and glass. Analyzing their chemical composition, historical evaluation, contemporary uses, limitations, architectural possibilities and new and future products.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Construction

DA 3420 INDUSTRIAL ARCHITECTURE

Analyzing and evaluating the different construction techniques of steel and concrete, their characteristics, normalization, constructive criteria and its possibilities in the architectural design of plants and industrial facilities.

Requirements: DA 3850 Construction Processes and Techniques

Credits: 6 Level: Advanced

Knowledge Area: Construction

DA 3430 ARCHITECTURE AND CONTEXT STUDY

Learning and exploring the interrelation between the construction and the site as well as its situation and environment, regarding physical considerations as well as historical, geographical and cultural. Analyzing and interpreting the site applying principles and strategies for sustainable development.

Requirements: Having completed 150 credits

Credits: 9 Level: Intermediate

Knowledge Area: Sustainable Development

DA 3435 SUSTAINABLE ARCHITECTURE STUDY I

Learning and exploring the basic principles and components of sustainable design responding to weather factors, as a design premise. Developing the investigation and design of architectural propositions, at a high conceptual level, programmed and technical in projects for middle and large scale.

Requirements: DA 3430 Architecture and Context Study and concurrent to DA 3450 Sustainable Architecture Theory.

Credits: 9 Level: Intermediate

Knowledge Area: Sustainable Development

DA 3440 SUSTAINABLE ARCHITECTURE STUDY II

Learning by exploring the interrelation between the built and natural environment through an approach to integral systems, with an emphasis in the sustainable construction design and planning of communities. Learning the methods for efficiency and energy renewal and the appropriate use of resources, materials, water and land.

Requirements: DA 3435 Sustainable Architecture Study I and concurrent to DA 3865 Analysis Through Geographic Information

Credits: 9 Level: Advanced

Knowledge Area: Sustainable Development

DA 3445 URBAN DESIGN STUDY

Relating the knowledge and practice of architectural design with its integration to the urban environment. Learning and exploring the composition of urban spaces considering socio-cultural and historical aspects. Applying the methodological aspects, plastic, functional and constructive, handling the architectural unity, inscribed in the urban context. Learning the elements of urban image: neighborhoods, nodes, pathways, etc.

Requirements: DA 3440 Study of Sustainable Architecture II and concurrent to DA 3460 Urbanism Fundamentals

Credits: 9 Level: Advanced

Knowledge Area: Sustainable Development

DA 3450 SUSTAINABLE ARCHITECTURE THEORY

Learning and understanding the basic principles and concepts for architecture sustainability. Analyzing in a critical manner the work of leader architects in sustainable development, their postures and paradigms. Examine the design as a response to the weather including passive and active systems.

Requirements: Concurrent to DA 3435 Sustainable Architecture Study I

Credits: 6 Level: Intermediate

Knowledge Area: Sustainable Development

DA 3460 URBANISM FUNDAMENTALS

Learning by understanding the historical, social, cultural and economic phenomenon that affects the urban shape and sustainability of cities, communities and urban districts.

Examine the role played by government, developers, communities, architects, planners through a theoretical analysis or study cases.

Requirements: Concurrent to DA 3445 Urban Design Study

Credits: 6 Level: Advanced

Knowledge Area: Sustainable Development

DA 3465 ARCHITECTURAL PRESERVATION

Comparing the restoring techniques and architectural preservation, including constructions considered historical monuments. Exploring the possibilities for recycling and adjustment in older constructions. Using the documentation and feasibility studies techniques as a tool in these processes.

Requirements: Having completed 300 credits

Credits: 6 Level: Advanced Knowledge Area: Sustainable Development

DA 3475 DRAWING AND DIGITAL IMAGE

Training the student in the use of drawing computer tools and the acquisition, capturing, manipulation, exporting; image creating and editing, digital as well as printed.

Requirements: None Credits: 3 Level: Basic.

Knowledge Area: Design through Digital means

DA 3480 COMPUTER AIDED DESIGN FOR GRAPHIC DESIGN

Training the student in the use of computer tools for vectorial drawing and preparing electronic files for exporting to advanced computer tools.

Requirements: DA 3475 Drawing and Digital Image

Credits: 3 Level: Basic

Knowledge Area: Design through Digital means

DA 3485 COMPUTER ASSISTED DRAWING FOR ARCHITECTURE

Training the student in the use of computer packages commonly used in the production of architectural drawings including the study of bi-dimensional designs and constructive drawings.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Design through Digital means

DA 3490 ADVANCED PROJECT STUDY

Providing the student a theoretical referential framework and the appropriate technical support to develop significant projects with new means. The student will be able to put into practice the new techniques in the artistic production, as well as incorporate new procedures.

Requirement: DA 3305 Intermediate Project Study

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3495 THREE DIMENSION MODELING AND DESIGN

Training the student in the use of the different tools for the presentation and representation of architectural projects. Understanding the fundamentals to elaborate three-dimension projects. Creating and editing the tools to elaborate light effects, materials and borders. Presenting projects interactively using the tools and basic multimedia programming concepts.

Requirements: DA 3485 Computer Assisted Drawing for Architecture or DA 3480 Computer Aided Design for Graphic Design

Credits: 6 Level: Basic

Knowledge Area: Design through Digital means

DA 3500 ELECTRONIC EDITION

Training the student in the necessary computer tools for presenting documents, integration of different elements and their preparation of negatives and/ or digital printing process.

Requirements: None Credits: 3 Level: Intermediate

Knowledge Area: Design through Digital means

DA 3505 MULTIMEDIA

Training the student in the necessary computer tools to handle presentations based in the time line, capturing and using audio and video and interactive materials.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Design through Digital means

DA 3510 ELECTRONIC ANIMATION

Training the student in the required computer tools for the production of animation processes.

Requirements: SC 1030 Design of Interfaces Credits: 6 Level: Advanced

Knowledge Area: Design through Digital means

DA 3515 WEB PAGE DESIGN

Training the student I the use of different tools for the Web Page Design, its integration with the drawing, animation, graphical tools and its application in the design of interactive web pages.

Requirements: DA 3510 Electronic Animation

Credits: 6 Level: Advanced

Knowledge Area: Design through Digital means

DA 3520 CONSTRUCTION PROJECT MANAGEMENT

Understanding and mastering the methodology of Administración Profesional de Proyectos (APP) applied to the process and development of an architectural construction work to the different elements that comprise the bidding process, bid participation, contracting and project management.

Requirement: DA 1690 Construction Costs and Budgets

Credits: 6 Level: Advanced

Knowledge Area: Construction Management

DA 3525 SELF-EDITING

Learning to analyze the parts and composition of a publication. Learning to make publications with the appropriate presentation program.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Design through Digital means

DA 3530 URBAN LANDSCAPING

Analyzing and studying the development of multi-dimensional sustainable communities in the area of harmonious, balanced build constructions, focusing in the relationship between the natural and artificial elements in the urban environment. Include fundamentals of eco urbanism and green architecture.

Requirements: DA 3870 Elements of Landscaping Architecture

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3535 COLOR AND MATERIALS IN ARCHITECTURAL INTERIORS

Investigate and apply the use, selection and combination of materials and colors as an expression tool in the composition of interior spaces. Includes the necessary structural principles for the completion of the designs.

Requirements: DA 3845 Product Representation o DA 3135 Architectural Representation II

Credits: 6 Level: Advanced Knowledge Area: Construction

DA 3630 STUDY OF MATERIALS AND TAPESTRY DESIGN

Learning the elements that provide the necessary criteria to carry out the design of materials for the application of outfits and furniture, tapestries, and accessories appropriate to the social and economic context of the people.

Requirements: None Credits: 9 Level: Basic

Knowledge Area: Design

DA 3635 STUDY OF WOMEN'S FASHION DESIGN

This course puts together the knowledge for the acquisition of criteria in carrying out the design of women garments considering normal body structure, based on the use of silhouettes, textures, and color according to a fashion trend appropriate to specific life styles.

Requirements: DA 3665 Basic Patterns Credits: 9 Level: Intermediate

Knowledge Area: Design

DA 3640 STUDY OF MEN'S FASHION DESIGN

This course shows the knowledge and parameters to acquire the criteria to design concepts that satisfy the basic needs of masculine fashion, according to the market segments, in their different categories. In the creation of fashion the different men categories are considered.

Requirements: None Credits: 9 Level: Intermediate

Knowledge Area: Design

DA 3645 STUDY OF CHILDREN FASHION DESIGN

In this course, the elements that support the projects for children designs are learned and analyzed, enhancing a workshop type space for the student to suggest innovating solutions in garment designs for the children division, based on personal elements for its production in series.

Requirements: None Credits: 9 Level: Intermediate

Knowledge Area: Design

DA 3650 ACCESSORY DESIGN STUDY

This course provides the student the knowledge necessary for the design of accessories in the personal outfits, according to a social and cultural reality in each community. These elements shall be integrated to others in outfits in a harmonious and sustainable manner.

Requirements: Having completed 216 credits

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3655 STUDY OF INTEGRAL IMAGE DESIGN

This course induces and leads to the professional elaboration of a fashion design project (textile or garments) based in a methodology applied in the textile industry through staying in an organization of this field, serving national and international markets.

Requirements: DA 3650 Accessory Design Study y DA 3675 Pattern Transformation.

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3660 DIGITAL DRAWING FOR FASHION

This course addresses the concepts and principles of existing garments in the different categories, besides the techniques and tools for the representation of garments for their application in the elaboration of lines and design collections. The computer will be used as indispensable instrument in developing the skills for digital representation of flat garments.

Requirements: Having completed 144 credits Credits: 3 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3665 BASIC PATTERNS

This course is a theoretical-practical workshop, where the student will learn and apply the process of basic pattern elaboration in the different categories (women, men, children, babies).

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3670 INDUSTRIAL PATTERNS

This course is theoretical-practical, where the student learns and applies the way to transform the base patterns in any design in the classification of Women and Men in the different categories and sizes. The course is supported by the knowledge acquired in the Basic Patterns course.

Requirements: DA 3665 Basic Patterns Credits: 6 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3675 PATTERN TRANSFORMATION

The course is carried out as a theoretical-practical workshop where the student learns and applies the form to transform the base patterns in any design in the classification of babies and children in the different categories and sizes. This course is supported by the knowledge acquired in the course Basic Patterns I which is fundamental in the application of this course.

Requirements: DA 3670 Industrial Patterns

Credits: 6 Level: Advanced Knowledge Area: Drawing and Design Foundations

DA 3680 FIBER AND THREAD STUDY

In this course the student will work in the laboratory identifying the different materials and will learn the necessary processes for the manufacturing or textile products for daily use.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3685 FLAT WEAVING

In this course, in a theoretical and practical manner the design of materials for Flat Weaving is presented and the student will be able to learn in depth the process of how to develop and weave their samples.

Requirements: DA 3685 Fiber and Thread Study Credits: 6 Level: Intermediate
Knowledge Area: Drawing and Design Foundations

DA 3690 TEXTILES

In this course, the purpose is to have the student learn the historical and social knowledge of the development of textile materials, their original processes, production, marketing and use in the garment industry, as well as the necessary knowledge for the correct selection of the most appropriate materials for their designs.

Requirements: DA 3685 Flat Weaving Credits: 6 Level: Intermediate
Knowledge Area: Drawing and Design Foundations

DA 3695 INTRODUCTION TO APPAREL WORKMANSHIP

In this course, the intention is for the student to become familiar with the use of machinery and devices for workmanship as well as the terminology used in the industry.

Requirements: None Credits: 6 Level: Intermediate
Knowledge Area: Drawing and Design Foundations

DA 3700 INTERIOR DESIGN HISTORY

Providing the student the information for the understanding of history, development and transformation of interior design to become sensitive, critical and discuss the evolution of the different atmospheres, spaces and adjustments along time.

Requirements: None Credits: 6 Level: Basic
Knowledge Area: Theory and History of Design

DA 3705 ACOUSTICS LABORATORY

Experiencing the nature of sound control and propagation. Applying the techniques, standards and materials to develop spaces and interiors with appropriate and functional acoustic designs.

Requirements: DA 3875 Acoustical Design and Illumination
Credits: 3 Level: Intermediate
Knowledge Area: Installations

DA 3710 MATERIALS FOR SPACES AND ENVIRONMENTS

Learning y characterizing the different materials that may be applied in interiors, spaces and atmospheres, their acoustic properties or reflection, permeability, insulation and safety, among others.

Requirements: DA 3535 Color and Materials in Architectural Interiors
Credits: 6 Level: Intermediate Knowledge Area: Construction

DA 3715 STUDY OF RESIDENTIAL SPACES

Developing the ability to suggest propositions for interior design through an investigation and development of residential projects and for housing areas with different subjects including comparative studies or works carried out, development, technology considerations and materials.

Requirements: DA 3220 Study of Dwelling Architecture

Credits: 9 Level: Intermediate. Knowledge Area: Design

DA 3720 ILLUMINATION LABORATORY

Applying and experimenting the technology, systems and illumination equipment in the interior design of the constructions. Developing illumination designs as part of the architectural proposal for the different types of constructions and applications.

Requirements: DA 3875 Acoustical Design and Illumination

Credits: 3 Level: Intermediate Knowledge Area: Installations

DA 3725 STUDY OF WORK SPACES

Developing the ability to present interior design propositions through the investigation and development of projects in work areas such as offices, receiving areas, service, areas, offices, and collections and other different topics, including comparative studies of works carried out, development, considering the technology available, materials and accessories.

Requirements: Having completed 180 credits

Credits: 9 Level: Intermediate Knowledge Area: Design

DA 3730 INTERIOR SIGNALS

Introducing, learning and handling the rules for signals and standards used in the spaces and environments to be applied appropriately in the interior design.

Requirements: None

Credits: 6 Level: Intermediate

Knowledge Area: Design

DA 3735 STUDY OF COMMERCIAL SPACES

Developing the ability to present interior design propositions through investigation and development of projects for commercial spaces, windows, services and other different topics including comparative studies of works carried out, development, considering the technology available, materials and accessories.

Requirements: DA 3725 Study of Work Spaces

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3740 INTEGRAL STUDY OF INTERIOR DESIGN

Developing and stimulating the abilities for interior design through integral works that include the knowledge and abilities previously developed.

Requirements: DA 3735 Study of Commercial Spaces

Credits: 9 Level: Advanced Knowledge Area: Design

DA 3745 INTERIORISM TRENDS

Providing the student the information relative to trends followed by interior design in the world and mainly in Mexico with the purpose of maintaining them updated in the knowledge and techniques used in the discipline.

Requirements: DA 3700 Interior Design History

Credits: 6 Level: Advanced

Knowledge Area: Theory and History of Design

DA 3750 INTELLIGENT DEVICES AND INTERFACES

Learning the different intelligent systems existing and that may be used in the interior design in constructions, such as illumination, sound, sensors, ventilation and air conditioning among others, as well as elements and interfaces that are part of them.

Requirements: DA 3370 Equipment and Installations

Credits: 6 Level: Advanced

Knowledge Area: Design through Digital means

DA 3755 INTERIORISM SEMINAR

Analysis and evaluation of the problem related with the profession and its environment, with subjects selected when the course is imparted.

Requirements: Having completed 252 credits

Credits: 6 Level: Advanced.

Knowledge Area: Theory and History of Design

DA 3760 ANALYSIS AND FEASIBILITY FOR COVERS AND FINISHINGS

Learning and analyzing the different options existing in materials, their characteristics, durability, advantages and disadvantages among them and analyzing in order to determine the best option for each specific design.

Requirements: DA 3710 Materials for Spaces and Environments

Credits: 6 Level: Intermediate Knowledge Area: Construction

DA 3765 TECHNIQUES FOR INTERIOR ATMOSPHERE

Learning the characteristics and applications of the possible means that are in the environment to adjust to the temperature, humidity, ventilation, audio, visibility needs among others that determine the appropriate comfort of the space.

Requirements: DA 3710 Materials for Spaces and Environments

Credits: 6 Level: Intermediate Knowledge Area: Installations

DA 3770 GUIDED PROFESSIONAL PRACTICE LINT

Applying in the real work field the criteria, knowledge and responsibilities formed and acquired through the degree.

Requirements: Having completed 231 credits

Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3775 FINAL EVALUATION PROGRAM LINT

Determining if the student is able to perform in his profession. To achieve it, the student is exposed to situation models he will have to face in professional life, evaluating his responsibility, methodological ability in searching, processing and using information establishing problems, designing solutions and applying the appropriate technique in each case.

Requirements: Last semester of the program and still having 36 credits including PEF

Credits: 12 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3780 FURNITURE DESIGN

Analyzing and evaluating critically the home, work, industrial, commercial and urban furniture; in regards to design (shape-function), manufacturing, components and materials used.

Requirements: IN 3350 Decision Making in Product Development

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3785 ACCESSORY DESIGN

Analyzing and evaluating critically the home, work, industrial, commercial and urban furniture; in regards to design (shape-function), manufacturing, components and materials used..

Requirements: IN 3350 Decision Making in Product Development

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3790 EXTERIOR VEHICLE DESIGN

Acquiring and applying the knowledge regarding the function definition, interaction, constitution; normalizations and standards safety, ergonomoy, aerodynamics and manufacturing feasibility; to suggest new designs for exterior body in a vehicle.

Requirements: IN 3370 Basic Concepts for Automotive Design

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3795 DESIGN OF VEHICLE INTERIORS

Acquiring and applying the knowledge on the function definition, interaction, constitution; normalizations and standards, safety, ergonomoy, aerodynamics and manufacturing feasibility; to suggest new designs for interiors and vehicle instruments.

Requirements: IN 3370 Basic Concepts for Automotive Design

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3800 GUIDED PROFESSIONAL PRACTICE I LDTM

Applying in the real work field the criteria, knowledge and responsibilities, formed and acquired through the study of the degree.

Requirements: Having completed 216 credits.

Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3805 GUIDED PROFESSIONAL PRACTICE II LDTM

Applying in the real work field the criteria, knowledge and responsibilities, formed and acquired through the study of the degree.

Requirements: DA 3800 Guided Professional Practice I LDTM

Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3810 FINAL EVALUATION PROGRAM LDTM

Determining if the student is able to perform in his profession. To achieve it, the student is exposed to situation models he will have to face in professional life, evaluating his responsibility, methodological ability in searching, processing and using information establishing problems, designing solutions and applying the appropriate technique in each case.

Requirements: Last semester of the program and still having 36 credits including PEF

Credits: 9 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3815 TOPOGRAPHIC STUDY

Learning the fundamentals of planimetry and altimetry and its application to architectural design problems.

Requirements: None Credits: 6 Level: Basic Knowledge Area: Construction

DA 3820 ERGONOMY

Identifying and using the elements involved in the man-object relation, supported in the international standards for Ergonomics, considering the aspects of the working environment and their daily atmosphere for the application in the product design.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Drawing and Design Foundations

DA 3825 PHOTOGRAPHY FUNDAMENTALS

Developing in the student the ability for photographic composition through theoretical knowledge and practical of black and white photography, applied in an experimental and practical manner.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Advertising Design and Printing

DA 3830 FINAL EVALUATION PROGRAM ARQ-04

Determining if the student is able to perform in his profession. To achieve it, the student is exposed to situation models he will have to face in professional life, evaluating his responsibility, methodological ability in searching, processing and using information establishing problems, designing solutions and applying the appropriate technique in each case

Requirements: DA 2570 Architectural Research , last semester in the program and still having 36 credits including PEF Credits: 12 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3835 FINAL EVALUATION PROGRAM LDG-04

Determining if the student is able to perform in his profession. To achieve it, the student is exposed to situation models he will have to face in professional life, evaluating his responsibility, methodological ability in searching, processing and using information establishing problems, designing solutions and applying the appropriate technique in each case

Requirements: Last semester of the program and still having 36 credits including PEF

Credits: 9 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3840 FINAL EVALUATION PROGRAM LDI-04

Determining if the student is able to perform in his profession. To achieve it, the student is exposed to situation models he will have to face in professional life, evaluating his responsibility, methodological ability in searching, processing and using information establishing problems, designing solutions and applying the appropriate technique in each case.

Requirements: Last semester of the program and still having 36 credits including PEF

Credits: 12 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3845 PRODUCT REPRESENTATION

Training and providing the student the technical-graphical and electronic knowledge to acquire the mastery in the use and handling of representation techniques of commercial projects.

Requirements: DA 3110 Illustration.

Credits: 6 Level: Intermediate

Knowledge Area: Drawing and Design Foundations

DA 3850 CONSTRUCTION PROCESSES AND TECHNIQUES

Learning y comparing the different construction systems and procedures of greatest application in our environment. Understanding the relation between materials, the site and its possibilities in architectural design.

Requirements: DA 3415 Construction Materials

Credits: 6 Level: Intermediate

Knowledge Area: Construction

DA 3855 ADVANCED CONSTRUCTION PROJECTS MANAGEMENT

Understanding the process, formation, composition and administration of design and construction organizations, taking the development of a project for its management, architectural design and constructive, carried out until the construction license.

Requirements: DA 3520 Construction Project Management

Credits: 6 Level: Advanced

Knowledge Area: Construction Management

DA 3860 GUIDED PROFESSIONAL PRACTICE ARQ-04

Applying in the real work field the criteria, knowledge and responsibilities, formed and acquired through the study of the degree.

Requirements: Having completed 300 credits Credits: 6 Level: Advanced

Knowledge Area: Linkage: PEF and Professional Practices

DA 3865 ANALYSIS THROUGH GEOGRAPHIC INFORMATION

Understanding the use of GIS as a decision making tool in planning and urban design problems, integrating graphical images (maps and drawings) with a computer system with the capacity to receive, correlate and join information in a non-graphical database.

Requirements: Concurrent to DA 3440 Sustainable Architecture Study II

Credits: 6 Level: Advanced

Knowledge Area: Sustainable Development

DA 3870 ELEMENTS OF LANDSCAPING ARCHITECTURE

Exploring the interrelation of man with the environment. Developing the composition and use of elements that are part of landscaping architecture: plants, materials, water, illumination, benches and other objects. The projects include urban sites, public spaces and residences.

Requirements: Having completed 231 credits

Credits: 6 Level: Advanced Knowledge Area: Design

DA 3875 ACOUSTICAL DESIGN AND ILLUMINATION

Learning and applying the principles and acoustic design standards and for illumination: understanding the nature of sound control and propagation, learning the techniques and standards to develop architectural spaces with appropriate and functional acoustic designs, learning the use and application of technology, systems and illumination equipment in buildings and developing designs for illumination as part of the architectural proposal in different kinds of edifications.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Installations

Department of Law

DE 1150 INTRODUCTION TO LAW

Offering the individual that started the degree of law, an overview of the juridical science that strengthens his professional vocation.

Requirements: None Credits: 6 Level: Basic

DE 1210 MERCANTILE LEGISLATION

Understanding some basic aspects of mercantile law as well as the knowledge and analysis of the credit instruments and Mercantile Partnerships, with special emphasis in the corporations.

Requirements: None Credits: 6 Level: Basic

DE 1221 METHODOLOGY OF LEGAL INVESTIGATION

Applying the method of Legal Investigation through the interpretation, analysis and synthesis of juridical topics and its linkage with the resolution of concrete juridical situations

Requirements: None Credits: 3 Level: Basic

DE 1251 GENERAL PROCESS THEORY

Explaining the function of the process as juridical instrument. Learning the fundamental concepts of procedural-jurisdictional law, action and process.

Requirement: DE1150 Introduction to Law

Credits: 3 Level: Basic

DE 1310 LABOR LAW

Understanding the importance of the knowledge and understanding of the regulations of the Labor Law within the daily life, as well as in the development of their future professional life.

Requirement: None Credits: 6 Level: Basic

DE 1371 PROPERTIES

Analyzing in the juridical framework the properties in the federal, state and municipal environment, in order to be able to develop in the field of enterprises and consulting.

Requirement: DE3115 People and family Credits: 6 Level: Basic

DE 1430 CONSTITUTIONAL LAW

Analyzing the fundamentals, organization and constitutional structure of the Mexican State, the relationship of the federal powers among them and with the citizens; linking the prior with the socio-political reality currently in Mexico.

Requirement: DE1150 Introduction to Law

Credits: 6 Level: Basic

DE 1451 FUNDAMENTAL LAWS AND GUARANTEES

Analyzing the concept and fundamental of the fundamental rights and their constitutional regulations in Mexican law.

Requirement: DE1430 Constitutional Law Credits: 6 Level: Basic

DE 1471 OBLIGATIONS, INTRODUCTORY PART

Analyzing the field of personal rights, credit or obligations based on its conceptualization, sources, modalities and juridical consequences according to the current civil legislation.

Requirements: DE 3120 Successions Credits: 6 Level: Basic

DE 1510 COMMUNICATIONS LEGISLATION

Understanding the basic postulates of the law theory, Individual guarantees and the regulations regarding communication.

Requirements: None Credits: 6 Level: Basic

DE 1531 OBLIGATIONS, ADVANCED PART

Putting into practice the general knowledge of the theory of obligations in their main figures and juridical consequences.

Requirement: DE1471 Obligations, Introductory Part

Credits: 6 Level: Basic

DE 1550 PRIVATE INTERNATIONAL LAW

Identifying, learning, and solving the problems resulting from international juridical traffic, which implies a total understanding of the regulations for conflict of laws and other conflict resolution elements where exogenous elements appear.

Requirement: DE1650 Public International Law

Credits: 6 Level: Intermediate

DE 1571 CIVIL AGREEMENTS

Understanding and analyzing within the civil branch, issues related to urgent regulations in contracts in Mexico, through the study of the doctrine, legislation and applicable jurisprudence.

Requirement: DE 1531 Obligations, Advanced Part

Credits: 6 Level: Intermediate

DE 1591 PENAL PROCEDURAL

Analyzing the stages of the Penal process in the Mexican penal system.

Requirement: DE3110 Special Penal Law Credits: 3 Level: Basic

DE 1610 FISCAL LAW

Analyzing the concepts, classifications and justification of fiscal obligations.

Requirements: None Credits: 6 Level: Basic

DE 1650 PUBLIC INTERNATIONAL LAW

Locating Public International Law within the context of law and how the international law impacts in our country, as well as learning the international juridical framework and the forms to solve international controversies.

Requirement: DE1150 Introduction to Law Credits: 6 Level: Intermediate

DE 1710 CUSTOMS LEGISLATION

Analyzing the national and international framework in regards to customs practices.

Requirements: None Credits: 6 Level: Basic

DE 1810 LEGAL REGIME OF FOREIGN TRADE

Having a global vision of foreign trade, the economic blocks mechanisms and procedures that will give the necessary instruments for their participation in the future within the process of internationalization of economy and the world trade.

Requirements: None Credits: 6 Level: Basic

DE 1851 CIVIL PROCEDURAL LAW

Applying the procedures established by the law in regards to civil area. Distinguish the actions that integrate the procedures and the appropriate way for each litigation.

Requirement: DE1251 General Process Theory. Credits: 6 Level: Intermediate

DE 1891 MERCANTILE PARTNERSHIPS

Understanding and analyzing the legal provisions corresponding to the regime of societies and mercantile associations in México with special emphasis in corporations.

Requirement: DE3160 Mercantile Law: Introduction and Credit Instruments.

Credits: 6 Level: Intermediate.

DE 1950 COMPARATIVE LAW

Make the student familiar with the main juridical families in the contemporary world and start him in the use of the comparative method.

Requirement: Having completed 90 credits in law courses.

Credits: 6 Level: Intermediate

DE 1970 ADMINISTRATIVE LAW

Analyzing the theoretical principles and purposes of Administrative Law and the juridical framework or Administrative Law in Mexico.

Requirement: DE1451 Fundamental Laws and Guarantees Credits: 6

DE 2051 INDIVIDUAL LABOR LAW

Understanding the key fundamentals of the labor law. Analyzing the concepts and regulations applicable to the relationship between employers and workers.

Requirement: DE1430 Constitutional Law o DE1310 Labor Law

Credits: 6 Level: Intermediate

DE 2090 STATE AND MUNICIPAL LAW

Understanding and applying the regulations governing the structure and operation of federative entities and municipalities in Mexico and evaluate based on its current reality and the political philosophy.

Requirement: DE 1970 Administrative Law

Credits: 6 Level: Intermediate

DE 2111 LEGAL INVESTIGATION

Applying the fundamental epistemological postulates regarding the juridical disciplines through the investigation of national and international legal texts.

Requirement: DE1221 Methodology of Legal Investigation

Credits: 3 Level: Basic

DE 2171 SEMINAR: CIVIL

Applying the knowledge related to civil law through establishing practical cases, using the civil legislation applicable and jurisprudence of the Supreme Court of Justice in the Nation.

Requirement: DE 1751 Civil Agreements Credits: 3 Level: Intermediate

DE 2270 INTELLECTUAL AND INDUSTRIAL PROPERTY

Learning in general the different Intellectual and Industrial Property laws that exist in Mexico, as well as the different international conventions in the matter that Mexico has not ratified.

Requirement: DE1970 Administrative Law Credits: 6 Level: Intermediate

DE 2321 SEMINAR: MERCANTILE

Applying the theoretical knowledge of mercantile law to concrete situations through the resolution of practical cases.

Requirement: DE3175 Mercantile Procedural Law Credits: 3 Level: Advanced

DE 2470 LABOR RELATIONS

Analyzing the basic rights of individuals in regards to individual right for work in Mexico.

Requirement: DE1310 Labor Law Credits: 6 Level: Intermediate

DE 2500 Guided Professional Practice LDE I

Start the linkage of the student to the productive systems.

Requirement: Having accumulated 72 credits in law courses

Credits: 6 Level: Advanced

DE 2550 SEMINAR OF ABEAS CORPUS

Address the student to research tasks of the practice in issues related with the Juicio de Amparo, besides ventilating cases that are not foreseen in legislation of the matter and that are of general interest and every student shall be aware and prepared for the beginning of the next Century.

Requirement: DE3130 Abeas Corpus (Second Part) Credits: 6 Level: Advanced

DE 2570 SOCIAL SECURITY

Analyzing the status that our Social Security System maintains within the modernization process.

Requirements: None Credits: 6 Level: Intermediate

DE 2580 FISCAL LAW

Learning the fundamental postulates of Fiscal Law regarding the subjects and contributions, as well as the rights and obligations of the citizens and the fiscal authorities; besides learning the stages for execution of the administrative resources and the about the procedures contentious and administrative.

Requirement: DE 1970 Administrative Law

Credits: 6 Level: Intermediate

DE 2670 TAXES AND OTHER CONTRIBUTIONS

Learning the basic elements that comprise the tax structure, as well as learning the general classification of the contributions and analyze the basic structure of the different legal orders in the fiscal field.

Requirements: DE 2580 Fiscal Law

Credits: 6 Level: Intermediate

DE 2700 GUIDED PROFESSIONAL PRACTICE LDE II

Continue the linkage with the productive systems.

Requirement: DE2500 Guided Professional Practice LDE I

Credits: 6 Level: Advanced

DE 2731 Juridical Thinking

Understand the different philosophical trends in law and their relation with the values to which it aspires, as a means of service for man.

Requirement: DE1451 Fundamental Laws and Guarantees

Credits: 3 Level: Intermediate.

DE 2771 SEMINAR: FISCAL

Analyzing and applying the Mexican Fiscal regulations by the analysis of practical cases.

Requirement: DE2670 Taxes and Other Contributions

Credits: 3 Level: Advanced

DE 2900 FINAL EVALUATION PROGRAM LDE

Meeting the necessary activities for the completion of the degree.

Requirement: To be studying the last semester Credits: 6 Level: Advanced

DE 3075 LEGAL ENVIRONMENT IN BUSINESSES

Learning and applying the legal aspects that surround the organizations.

Requirements: None Credits: 6 Level: Basic

DE 3080 INDUSTRIAL AND INTELLECTUAL PROPERTY LEGISLATION

Understanding the legal regulations that correspond to the areas of intellectual and industrial property. Will be able to identify the requirements and processes necessary for the protection of his work

Requirements: None Credits: 6 Level: Basic

DE 3085 INTRODUCTION TO NORTH AMERICAN LEGAL SYSTEM

Understanding the legal institutions of the North American system through the analysis of the doctrine and legal texts in English.

Requirement: None Credits: 3 Level: Basic

DE 3090 UNDERSTANDING JURIDICAL TEXTS IN ENGLISH

Writing different kinds of texts and legal instruments in English.

Requirement: DE3085 Introduction to North American Legal System.

Credits: 3 Level: Intermediate.

DE 3095 ALTERNATE CONTROVERSY RESOLUTION

Analyzing the alternate methods for controversy resolution, the regulations for conflicting laws and other elements for conflict resolution where there are exogenous elements present.

Requirement: DE1531 Obligations, Advanced Part Credits: 6 Level: Intermediate

DE 3105 GENERAL PENAL LAW

Understand the course through the study and analysis of the concept of Penal Law, developing the historical background and the key penal juridical figures.

Requirements: None Credits: 6 Level: Basic

DE 3110 SPECIAL PENAL LAW

Analyzing particularly the crimes and penalties in the Mexican Juridical system.

Requirement: DE3105 General Penal Law.

Credits: 6 Level: Basic

DE 3115 PEOPLE AND FAMILY

Understanding the concept and legal regulations regarding the person and the institutions of the family law in the doctrine and the Mexican juridical system.

Requirement: None Credits: 6 Level: Basic

DE 3120 SUCCESSIONS

Analyzing the legal regulations regarding the succession right I the doctrine and the Mexican juridical system.

Requirement: DE1371 Properties. Credits: 3 Level: Basic

DE 3125 Abeas Corpus (First Part)

Analyzing the different constitutional processes for the defense of fundamental rights and the Mexican juridical laws referring particularly to the direct “amparo”.

Requirement: DE1451 Fundamental Laws and Guarantees

Credits: 6 Level: Advanced

DE 3130 Abeas Corpus (Second Part)

Analyzing the Legality system in Mexico to understand the Legal nature and the main institutions of the indirect “juicio de amparo” in Mexican Legal laws.

Requirement: DE3125 Abeas Corpus (First Part) Credits: 6 Level: Advanced

DE 3135 ENVIRONMENTAL LAW

Analyzing the legal framework of environmental law and its impact in the organization.

Requirement: DE1970 Administrative Law Credits: 6 Level: Advanced

DE 3145 LAW OF THE INTERNATIONAL COMMERCIAL TREATIES

Analyzing the international regulatory system current in the free trade area with the United States and Canada after NAFTA.

Requirements: DE1650 Public International Law o DE1710 Customs Legislation.

Credits: 6 Level: Intermediate

DE 3150 INTERNATIONAL AGREEMENTS

Analyzing the key elements, characteristics and consequences of agreements handled in the international market and their application to concrete cases.

Requirements: DE1571 Civil Agreements o None for LIN

Credits: 6 Level: Advanced

DE 3155 INTERNATIONAL TRADE LAW

Analyzing the mechanisms and legal instruments that govern the economic blocks and the participation in the processes for internationalization of economy and trade.

Requirements: DE1550 Private International Law

Credits: 6 Level: Intermediate

DE 3160 MERCANTILE LAW: INTRODUCTION AND CREDIT INSTRUMENTS

Understanding the most important aspects of mercantile law and in particular, the regulation of credit instruments in the national environment and its international impact.

Requirement: DE1471 Obligations, Introductory Part

Credits: 6 Level: Intermediate

DE 3165 AGREEMENTS AND MERCANTILE OPERATIONS

Understanding and analyzing the urgent regulations of the typical and atypical contracts in Mexican mercantile law, through the study of the doctrine, legislation and applicable jurisprudence.

Requirement: DE1891 Mercantile Partnerships

Credits: 6 Level: Intermediate

DE 3170 MERCANTILE BIDDING

Analyzing the new law, participate and locate the conflict of interests relative to insolvency through the doctrine and legal texts and applicable jurisprudence.

Requirement: DE1891 Mercantile Partnerships Credits: 6 Level: Advanced

DE 3175 MERCANTILE PROCEDURAL LAW

Learning, distinguishing and applying the different procedures that are established in the adjective law in mercantile matters. Distinguish the actions that integrate the procedures and the appropriate ways for each litigation.

Requirement: DE3165 Agreements and Mercantile Operations

Credits: 3 Level: Intermediate

DE 3180 BANKING AND EXCHANGE LAW

Learning the legal figures that comprise the banking rights, trade and monetary, likewise analyzing the different stock operations and the competent authorities participating in the application of the practice in the light of the legislation.

Requirements: DE3160 Mercantile Law: Introduction and Credit Instruments

Credits: 6 Level: Advanced

DE 3185 ECONOMIC COMPETITION LAW

Analyzing the legal framework for economic competition in Mexico.

Requirement: DE1970 Administrative Law

Credits: 6 Level: Advanced

DE 3190 COLLECTIVE LABOR LAW

Analyzing the applicable law to the relations that link the workers and the State.

Requirement: DE2051 Individual Labor Law

Credits: 6 Level: Intermediate

DE 3195 SEMINAR ON LABOR LAW

Applying the knowledge on labor law to concrete situations by means of analysis and discussion of the pertinent cases.

Requirement: DE3190 Collective Labor Law

Credits: 3 Level: Advanced

DE 3200 INTERNATIONAL BUSINESS REGULATION

Analyzing the key juridical aspects handled in the business field referred to the migratory labor regime, international fiscal issues, patents and brands, foreign investment, etc.

Requirements: DE1550 Private International Law.

Credits: 6 Level: Intermediate

DE 3205 SEMINAR ON ETHICAL-JURIDICAL DILEMMAS

Analyzing the key ethical issues of the law profession through practical cases and the application of the ethical values.

Requirements: None

Credits: 3 Level: Advanced

DE 3210 LEGAL REGIME OF THE ENTERPRISE

Analyzing the national legal framework that serves the key topics in the business.

Requirement: DE3160 Mercantile Law: Introduction and Credit Instruments

Credits: 6 Level: Intermediate

DE 3215 ADVANCED CORPORATE LABOR LAW

Applying the theoretical knowledge of labor law in identifying and counseling the organization in each and every one of the administrative documents that the company, being the employer, has the obligation to keep in its files, as well as the elaboration of individual as well as collective to take good care of the good order in the company so it does not affect the labor life of the companies or its workers.

Requirement: DE3190 Collective Labor Law.

Level: Advanced

DE 3220 LEGAL ISSUES OF HEALTH SERVICES

Understanding the regulations in terms of health service rendering in the Mexican legal system and the resulting responsibility of the service rendered.

Requirements: None Credits: 6 Level: Basic

Department of Economics

EC 1010 MICRO ECONOMY

Making the student aware in the study of the determination of market prices, understanding the consumer behavior, production, costs, and industrial organization, due to the importance in the administrative-economic areas.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Micro economy

EC 1030 MACRO ECONOMÍA

Preparing the student for the study of the large macro economic aggregates such as: consumption, investment, government expenses, exports and imports; and the production, unemployment, inflation and economic growth indicators so they are able to understand the global socioeconomic environment.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Macro economics

EC 1040 INTRODUCTION TO ECONOMICS

Providing the student with the basic economic principles, including the macro aspects and micro economic in order to facilitate understanding of his economic environment.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: General

EC 1050 ECONOMIC PROBLEMS IN MEXICO

Analyzing the environment surrounding the companies in the country, their role in the development with special emphasis in the mixed economy regime and the Government-enterprise relationship.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics Credits: 6 Level: Intermediate

Knowledge Area: General

EC 1150 SUSTAINABLE DEVELOPMENT ECONOMY

Analyzing the additional cost-benefit related with the selection of Public Policies, with an approach focusing the environment. Discussing the relationship between sustainability and efficiency as a key topic in this course, due to the implications of temporary distribution that the sustainable term has.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics Credits: 6 Level: Intermediate

Knowledge Area: General

EC 1160 MICRO ECONOMY I

Learning the graphical form as well as conceptual and mathematical, the theory of the different economic agents such as, the consumer and the producer, besides allowing the analysis and interpretation of concrete and real situation.

Requirements: EC 1010 Micro economy y FM 1150 Differential Calculus

Credits: 6 Level: Basic Knowledge Area: Micro economy

EC 1180 PRICING TECHNIQUES AND STRATEGIES

Learning and applying the methods and tools necessary to establish appropriately the prices to the products and services in a globalized competition framework.

Requirements: EC 1010 Micro economy y AD 1320 Marketing

Credits: 6 Level: Basic Knowledge Area: Micro economy

EC 1220 INTRODUCTION TO INTERNATIONAL ECONOMICS

Preparing the student for the study of theories of foreign trade and International Finance, in order for them to obtain the necessary tools to understand the international environment where the current corporations perform.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics

Credits: 6 Level: Intermediate

Knowledge Area: International Economics

EC 1250 MONEY AND BANKING

Analyzing the role of the money and the institutions and the financial market in the economy, examining the determinant issues of the risk structure and term of the interest rates, as well as the role of the Central Bank in the determination of the monetary supply.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics

Credits: 6 Level: Intermediate Knowledge Area: General

EC 1260 MICRO ECONOMY II

Understanding the behavior that originates the different market structures for products and factors, and being able to instrument economic strategies that optimize the benefits of the companies.

Requirement: EC 1160 Micro economy I

Credits: 6 Level: Intermediate Knowledge Area: Micro economy

EC 1340 INTERNATIONAL BUSINESS ATMOSPHERES

Introducing and understanding the critical elements that take part in the operation of international businesses, considering different aspects such as cultural environment, international trade, direct foreign investment and international agreements, among others.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics Credits: 6 Level: Intermediate

Knowledge Area: International Economics

EC 1440 ECONOMIC HISTORY

Understanding the factors that make the economic structure in a country change through time and with this the design of the economic policies.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics

Credits: 6 Level: Intermediate Knowledge Area: General

EC 1530 ANALYSIS OF MACRO ECONOMIC MODELS

Broaden the knowledge of the student in regards to the macro economic relations and models seen in Macro economics assuming flexible prices, in order to understand the impact of economic policies.

Requirement: EC 1030 Macro economics

Credits: 6 Level: Basic Knowledge Area: Macro economics

EC 1550 INTERNATIONAL FINANCE

Introducing the student in the context of international finance, enabling him to learn the operation of the international financial market, as well as the use and application of the most important financial instrument.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics

Credits: 6 Level: Intermediate Knowledge Area: International Economics

EC 1840 HISTORY OF ECONOMIC THINKING

Examine the theories that the great economists have created in time, to explain the operation of the economic activity.

Requirement: EC 1440 Economic History Credits: 6 Level: Intermediate

Knowledge Area: General

EC 2330 INTERNATIONAL TRADE

Examine the trade and investment trends in the world, the different theories for International Trade, the effects of trade on the economic growth, the arguments and protection instruments and its economic effects, integration and economic cooperation, commercial policies of the countries in development and the importance and impact in the multinational.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics

Credits: 6 Level: Intermediate Knowledge Area: Interpret

EC 2420 INTERNATIONAL TRADE LOGÍSTICS

Learning the role of logistics in the economy and in the organizations and through the analysis of the costs of the supply chain as well as the flow that follows the product from manufacturing and prepared for exports, to its destination.

Requirements: EC 1220 Introduction to International Economics, EC 1340 International Business Atmospheres ó EC 2330 International Trade

Credits: 6 Level: Intermediate

Knowledge Area: International Economics.

EC 2440 BUSINESS FORECASTS

Analyzing the importance that forecasts have I the business field, through the utilization of common techniques for forecasts used in planning and decision making in the activities in a company or industry. Developing a practical application once the forecast tools are understood.

Requirements: EC 1010 Micro economy y EC 1030 Macro economics ó EC 1040

Introduction to Economics. Credits: 6 Level: Intermediate

Knowledge Area: Quantitative Economy

EC 2460 ECONOMY AND STRATEGY

Preparing the student to understand the concepts of economic analysis with the point of view of planning and strategic and developing the competitive planning.

Requirement: EC 1260 Micro economy II Credits: 6 Level: Intermediate

Knowledge Area: Micro economy

EC 2530 OPEN MACROECONOMIC MODELS

Training the students in analysis of macro economic behavior of an open economy and evaluating the different economics politics that may be applied in a government in this kind of economics .

Requirement: EC 1530 Analysis of Macroeconomic Models

Credits: 6 Level: Intermediate Knowledge Area: Macro economics

EC 2540 DYNAMIC MACRO ECONOMY

Introducing the student in to the methodology that supports the basic models of dynamic macro economy (model of representative agent, model of overlapping generations) and the implications of an economic policy resulting from these.

Requirement: EC 2630 Macroeconomic Policy

Credits: 6 Level: Advanced Knowledge Area: Macro economics

EC 2560 INDUSTRIAL ORGANIZATION

Providing the student the key theoretical aspects of the market structures emphasizing on the strategic knowledge of the participants. Analyzing besides topics linked with the regulation policies in the markets.

Requirement: EC 1260 Micro economy II

Credits: 6 Level: Intermediate

Knowledge Area: Micro economy

EC 2570 CAPITAL AND MONEY MARKETS

Analyzing the different models of the financial economic analysis to evaluate and design investment portfolios.

Requirements: EC 2440 Business Forecasting y CO 3300 Administration and Financial Analysis Credits: 6 Level: Intermediate

Knowledge Area: Quantitative Economics

EC 2580 GUIDED PROFESSIONAL PRACTICE LIN

Linking the student with the practice in the work field in his area.

Requirement: Having completed 216 credits

Credits: 6 Level: Advanced Knowledge Area: General

EC 2590 GUIDED PROFESSIONAL PRACTICE LEC

king the student with the practice in the work field in his area.

Requirement: Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge Area: General

EC 2620 ANALYSIS OF COMMERCIAL TREATIES

Providing the student with the necessary tools to be able to understand and analyze the existing commercial treaties and identify the commercial opportunities.

Requirements: EC 1220 Introduction to International Economics, EC 1340 International Business Atmospheres ó EC 2330 International Trade

Credits: 6 Level: Intermediate

Knowledge Area: International Economics

EC 2630 MACROECONOMIC POLITICS

Understand the key models for Macro economic Politics, identifying its assumptions, the key variables and the objectives. Developing the ability to analyze the key applications of such models in real cases.

Requirement: EC 2530 Open Macroeconomic Models

Credits: 6 Level: Advanced

Knowledge Area: Macro economics

EC 2640 GAMES THEORY

Presenting the basic concepts of the Games Theory, as well as its applications I the business, economy, political, and financial areas

Requirements: EC 1260 Micro economy II y FM 1370 Probability and Statistics

Credits: 6 Level: Advanced Knowledge Area: Micro economy

EC 2650 STRATEGIES FOR INTERNATIONAL TRADE

Developing in the students the ability to have a strategic and analytical thinking in the strategy of internationalization of the enterprise, knowing the different tools and programs developed by the private sector, public sector and international organizations.

Requirement: EC 2620 Analysis of Commercial Treaties

Credits: 6 Level: Intermediate

Knowledge Area: International Economy

EC 2660 EXCHANGE FINANCE

Providing the student the technical requirements to understand the stock markets, their importance and the key factors that influence in their behavior.

Requirements: (EC 1010 Micro economy y EC 1030 Macro economics)

ó EC 1040 Introduction to Economics

Credits: 6 Level: Advanced Knowledge Area: General

EC 2720 ECONOMIC DEVELOPMENT

Analyzing the key theories of economic development, studying the main problems in development, such as poverty, income distribution, population growth, migration, low education level, and the effects in the external sector.

Requirement: EC 2540 Dynamic Macro economy

Credits: 6 Level: Advanced

Knowledge Area: Macro economics

EC 2730 TRADE SEMINAR

Integration of the concepts relative to international trade for design, application and evaluation of international commercial strategies.

Requirements: EC 2620 Analysis of Commercial Treaties y Having completed 216

Credits: 6 Level: Advanced

Knowledge Area: International Economy

EC 2760 PUBLIC SECTOR ECONOMY

Analyzing the role of the public sector in the economy, examining its effects on resource allocation and income distribution, examining the conditions of efficiency in production of public goods in comparison with the corresponding to private goods, as well as the economic incidence of taxes and their effect on equality.

Requirement: EC 1260 Micro economy II

Credits: 6 Level: Advanced Knowledge Area: Micro economy

EC 2780 BUSINESS INTEGRATING SEMINAR

Addressing the organization problems under an integral approach and the solution of cases in order to establish solutions to practical situations.

Requirement: Having completed 252 credits

Credits: 6 Level: Advanced Knowledge Area: Quantitative Economy

EC 2790 ECONOMIC DEVELOPMENT II

Analyzing in depth the different problems of development such as sub-employment, salary discrimination, rural development, environmental economy, access to credit, international commercial policy and foreign debt.

Requirement: EC 2720 Economic Development

Credits: 6 Level: Advanced Knowledge Area: Macro economics

EC 2820 MATHEMATICAL ECONOMY

Preparing the student to represent and analyze the economic models in mathematic form, using fundamentally Linear Algebra and Differential Calculus, Differential Equations and difference.

Requirement: EC 2440 Business Forecasts

Credits: 6 Level: Intermediate Knowledge Area: Quantitative Economy

EC 2840 ECONOMETRICS I

Learning the methods to estimate the parameters such as Minimum Generalized Squares and Maximum Veracity. Proving its statistical significance and thus build, the models that allow quantifying the relations between economic variables and make forecasts on them..

Requirement: EC 2820 Mathematical Economy

Credits: 6 Level: Intermediate

Knowledge Area: Quantitative Economics

EC 2860 ADMINISTRATIVE ECONOMICS

Analyzing the key economic principles for its application in business situations and for the obtainment of information for decision making. Acquiring tools for economic analysis for the study of practical business cases.

Requirement: EC 2440 Business Forecasts

Credits: 6 Level: Intermediate Knowledge Area: Micro economy

EC 2880 ECONOMETRICS II

Analyzing in depth the econometric tools for their application in models and economic forecasts reviewing the methodologies of the classic econometrics and the “new” econometrics to be able to apply creatively in economic investigation.

Requirement: EC 2840 Econometrics I

Credits: 6 Level: Advanced Knowledge Area: Quantitative Economics

EC 2890 ECONOMETRICS FOR FINANCIAL MARKETS

Preparing the student for the use of Econometrics for the analysis in financial situations and the design of applied financial models.

Requirements: EC 2440 Business Forecasts y CO 3300 Administration and Financial Analysis Credits: 6 Level: Advanced

Knowledge Area: Quantitative Economics

EC 2920 COMMERCIAL OPPORTUNITIES WITH AMERICA

Analysis of the opportunities that the American Continent presents to develop projects for commercial exchange.

Requirement: EC 2620 Analysis of Commercial Treaties

Credits: 6 Level: Advanced Knowledge Area: International Economics

EC 2930 COMMERCIAL OPPORTUNITIES WITH EUROPE

Analysis of the opportunities presented by the European Union to develop projects for commercial exchange.

Requirement: EC 2620 Analysis of Commercial Treaties

Credits: 6 Level: Advanced Knowledge Area: International Economics

EC 2940 COMMERCIAL OPPORTUNITIES WITH ASIA

Analysis of the opportunities presented by the Asian Continent to develop commercial trade and projects for commercial exchange.

Requirement: EC 2620 Analysis of Commercial Treaties

Credits: 6 Level: Advanced Knowledge Area: International Economics

EC 2960 INTERNATIONAL ECONOMIC POLITICS

Analyzing effects of the economic policies of the countries regarding trade and international finance.

Requirements: EC 1220 Introduction to International Economics, EC 1340 International Business Atmospheres ó EC 2330 International Trade.

Credits: 6 Level: Advanced Knowledge Area: International Economics

EC 2970 APPLIED MICRO ECONOMICS

Applying the micro economic concepts to real situations of the company or a productive sector, identifying the key variables I the solution of the problems.

Requirement: EC 1260 Micro economy II

Credits: 6 Level: Advanced Knowledge Area: Micro economy

EC 3020 FINAL EVALUATION PROGRAM I LIN

Establish the basis of the final evaluation project of the LIN program, including the customer selection, problem definition, elaboration of the theoretical frame and the search for secondary information.

Requirement: Having completed 252 credits

Credits: 6 Level: Advanced Knowledge Area: General

EC 3040 FINAL EVALUATION PROGRAM II LIN

Select and apply the scientific methodology for the solution of a real problem or for the elaboration of a research project previously defined applied to the International Trade environment.

Requirement: EC 3020 Final Evaluation Program I LIN

Credits: 6 Level: Advanced Knowledge Area: General

EC 3050 ECONOMIC ENVIRONMENT OF THE COMPANIES

Analyzing the economic environment in which the companies in Mexico move, examining the historical evolution, the effects on the performance of the companies and possible future scenarios.

Requirement: EC 1010 Micro economy

Credits: 6 Level: Advanced Knowledge Area: General

EC 3060 FINAL EVALUATION PROGRAM I LEC

Establish the basis of the final evaluation project of the LEC program, including the customer selection, problem definition, elaboration of the theoretical frame and the search for secondary information.

Requirement: Having completed 252 credits

Credits: 6 Level: Advanced Knowledge Area: General

EC 3070 ECONOMETRICS APPLIED TO THE COMPANY

Estimate demand functions and production of different industries and sectors in the Mexican economy and through the dual theory, the derivate demands of the work factor.

Requirement: EC 2440 Business Forecasts

Credits: 6 Level: Advanced Knowledge Area: Quantitative Economics

EC 3080 FINAL EVALUATION PROGRAM II LEC

Select and apply the scientific methodology for the solution of a real problem or the elaboration of a research project previously defined applied to the economic field.

Requirement: EC 3060 Final Evaluation Program I LEC

Credits: 6 Level: Advanced Knowledge Area: General

EC 3200 SUSTAINABLE TOURISM

Analyze the alternatives that the countries have to carry out their tourism development project that meets with the premise of preserving the ecology balance and caring for the environment.

Requirements: EC 1010 Micro economy, EC 1030 Macro economics y AD 5012 Tourism

Credits: 6 Level: Intermediate

Knowledge Area: Micro economy

EC 3250 TOURISM ECONOMICS

Providing the student with the tools necessary to carry out sectorial analysis related to tourism considering all the actions necessary to ensure the sustainability of the tourism projects.

Requirements: EC 1010 Micro economy, EC 1030 Macro economics y AD 5012 Tourism

Credits: 6 Level: Intermediate

Knowledge Area: Micro economy

EC 3300 TOURISM GEOGRAPHY

Providing an overview of the tourist activities and their social and territorial in the context of the international Geography .

Requirements: EC 1010 Micro economy y EC 1030 Macro economics

Credits: 6 Level: Intermediate Knowledge Area: General

Department of Education**ED 1160 EDUCATION EVALUATION**

Acquiring theoretical methodological knowledge for the design, development, execution and report of an evaluation in the institutional environment or educational programs.

Requirements: None Level: Advanced Credits: 6

ED 1240 GENERAL DIDACTICS

Analyze and evaluate the elements and implications of the General Didactics, with the purpose of designing course programs in a congruent manner with the execution and evaluation of the objectives of the teaching-learning process.

Requirements: None Level: Basic Credits: 6

ED 1250 EDUCATION TECHNOLOGY

Designing instructional strategies to develop learning environments based on Education Technology.

Requirements: None Level: Intermediate Credits: 6

ED 1410 EDUCATION PLANNING

Analyzing concepts and developing practices for institutional planning for the promotion of change and improvement of education institutions.

Requirements: None Level: Advanced Credits: 6

ED 1450 QUANTITATIVE INVESTIGATION IN EDUCATION

Analyzing and applying the methods and techniques for quantitative experimental research to a concrete education reality as a tool for proposals and alternatives for diagnosis, development and improvement of the education reality.

Requirements: None Level: Advanced Credits: 6

ED 1510 EDUCATIONAL ADMINISTRATION

Description: Understanding and evaluating critically different theoretical administration approaches and its applications for the analysis and improvement of education institutions.

Requirements: None Level: Advanced Credits: 6

ED 1610 INSTRUCTIONAL DESIGN

Acquire theoretical-practical tools for the Instructional Design use in different educational contexts.

Requirements: None Level: Intermediate Credits: 6

ED 2220 ANALYSIS OF EDUCATION IN MEXICO

Learning and analyzing, with a group of theoretical tools and methodological of the educational and cultural problem in Mexico, contextualizing it in the political and social life of the country.

Requirements: None Level: Basic. Credits: 6

ED 2310 COMPARATIVE EDUCATION

Understanding the interrelation between school institutions and society comparing different contemporary school systems.

Requirements: ED 2220 y ED 3055 Level: Intermediate Credits: 6

ED 2410 QUALITATIVE RESEARCH IN EDUCATION

Analyzing and applying the methods and techniques for qualitative research to a concrete educational reality as a tool for propositions and alternatives for diagnosis, development and improvement of the education reality.

Requirements: None Level: Advanced Credits: 6

ED 2810 PROFESSIONAL PRACTICE LED

Participate in projects in education institutions that enable the application of knowledge and skills of the profile of a Bachelor in Education.

Requirements: None Level: Advanced Credits: 6

ED 2850 FINAL EVALUATION PROGRAM LED

Elaborate a project for education development that enables integrating the knowledge, skills, and specific attitudes of a Graduate in Education Sciences, related to concrete improvement situations of the education institutions.

Requirements: None Level: Advanced Credits: 6

ED 3000 INTRODUCTION TO EDUCATION

Learning the different sciences that support in understanding education and the most outstanding characteristics and problems of education in Mexico.

Requirements: None Level: Basic Credits: 6

ED 3005 INFANCY AND ITS LEARNING

Learning the pedagogic principles that support learning of children from 3-6 years old and design, implement and evaluate educational activities with students in this age group.

Requirements: None Level: Basic Credits: 6

ED 3010 TEENAGERS AND ADULTS: THEIR EDUCATION PROCESS

Understanding the characteristics of teenager and adult learning, as well as the models and teaching strategies that are unique for these age groups.

Requirements: None Level: Basic Credits: 6

ED 3015 LEARNING PROBLEMS

Identifying the learning problems in children and teenagers and suggest prevention and rehabilitation strategies.

Requirements: None Level: Basic Credits: 6

ED 3020 THE STUDENT AND ITS DIVERSE CHARACTERISTICS

Learning the key characteristics of children and their basic learning needs for learning and suggest the different forms of education attention according to the integrating and inclusive curriculum that may respond to the current education trend.

Requirements: None Level: Basic Credits: 6

ED 3025 TEACHER PROFILES AND MODELS

Learning the key characteristics of the professors congruent with the different educational models to carry out a self-analysis of the personal profile achieved in the Degree of Education Sciences.

Requirements: None Level: Basic Credits: 6

ED 3030 LEARNING AND ITS NEUROLOGICAL BASIS

Acquiring theoretical conceptual basis on the learning process and the neurological functions that take part in the process.

Requirements: None Level: Basic Credits: 6

ED 3035 EDUCATION AND ITS PHILOSOPHICAL BASIS

Analyzing the different philosophical trends related to education, to conceive it as a process focused on the person and its integral formation.

Requirements: None Level: Basic Credits: 6

ED 3040 LEARNING PROCESSES, STRATEGIES AND THEORIES

Analyzing and synthesizing the different aspects of learning and its transfer of didactics and instruction.

Requirements: ED 3030 Level: Basic Credits: 6

ED 3045 LEARNING AND ITS PEDAGOGIC PROPOSITIONS

Analyzing and evaluating the different postures in pedagogues that have impacted in the orientation of the teaching-learning processes in history.

Requirements: None Level: Basic Credits: 6

ED 3050 LEARNING AND ITS INITIATIVES FOR THE INTELLECTUAL AND EMOTIONAL DEVELOPMENT

The student will analyze the intellectual and affective components in the teaching-learning process.

Requirements: None Level: Intermediate Credits: 6

ED 3055 MEXICAN EDUCATION POLICY IN THE GLOBAL CONTEXT

Analyzing the main components of Education Policy in Mexico, as the basis of the National Education System and comparing it in the global context.

Requirements: ED 2220 Level: Intermediate Credits: 6

ED 3060 DESIGN, IMPLEMENTATION AND CURRICULAR EVALUATION

Design, implement and evaluate the curricular process of an educational institution.

Requirements: ED 1610 Level: Advanced Credits: 6

ED 3065 CONTINUOUS EDUCATION AND COMMUNITY DEVELOPMENT

Learning the fundamentals and scopes of continuous education and creation of the community and valuing the importance of active participation of work in community.

Requirements: ED 1610 Level: Intermediate Credits: 6

ED 3070 READING AND WRITING DEVELOPMENT

Understanding and analyzing the essential processes of reading and writing and transferring to the different educational contexts for the acquisition and reading and writing development.

Requirements: None Level: Intermediate Credits: 6

ED 3075 DEVELOPMENT OF THE LOGICAL-MATHEMATICAL SKILLS AND SCIENTIFIC THINKING

Identifying and analyzing the processes for mathematics learning and transfer them to the classroom. Generating a reflexive, critical and rational attitude in facing education.

Requirements: None Level: Intermediate Credits: 6

ED 3080 DESIGN AND ELABORATION OF DIDACTIC MATERIALS

Designing, developing and evaluating didactic materials in different educational contexts.

Requirements: None Level: Intermediate Credits: 6

ED 3085 DISCIPLINE AND CHARACTER FORMING

Determine the relationship of personality, moral development and judgment of a person so there may be education activities designed for the integral formation of the student.

Requirements: None Level: Advanced Credits: 6

ED 3090 THE SCHOOL AS AN ORGANIZATION

Analyzing the implications that the nature of the school has as an organization for the development of effective administrative action processes.

Requirements: None Level: Intermediate Credits: 6

ED 3095 INTEGRATING COURSE: MY INITIAL ACADEMIC FORMATION

Integrating, co-evaluating and self-evaluating the knowledge and skills involved in the abilities for graduation and acquired during the first semesters of the degree in Education Sciences through the creation of a portfolio.

Requirements: None Level: Intermediate Credits: 6

ED 3100 INTEGRATING COURSE: MY THEORETICAL-PRACTICAL ACADEMIC FORMATION

Integrating, co-evaluating and self-evaluating the competencies acquired during the last semesters of the Degree in Education Sciences through the creation of a portfolio.

Requirements: None Level: Advanced Credits: 6

ED 3105 EARLY EDUCATION

Learning the pedagogic principles of education for children from conception to two-years old as well as designing education activities and didactic material that promotes integral development and a link with the family.

Requirements: None Level: Advanced Credits: 6

ED 3110 LANGUAGE DEVELOPMENT

Learning the evolution and acquisition of language in the child as an important part of integral development, the different alterations and methodology for rehabilitation.

Requirements: None Level: Advanced Credits: 6

ED 3115 CREATIVITY Y DEVELOPMENT OF FINE ARTS IN THE CHILD

Promoting creativity in children between 2 and 6 years old based in the different playing theories, using music, plastic arts, theater and dance as didactic tools for the achievement of the educational objectives.

Requirements: None Level: Advanced Credits: 6

ED 3120 STRATEGIES AND CURRENT TECHNIQUES FOR EDUCATION ORIENTATION

Learning what is education orientation and the ways to assist in low performance in school problems. Applying the best strategies to face these school challenges in an efficient manner.

Requirements: None Level: Advanced Credits: 6

ED 3125 SYSTEMS DIAGNOSIS

Learning the aspects that must be linked in valuing children with or without special education needs, based on different pedagogic, psychological and contextual approaches.
Requirements: None Level: Advanced Credits: 6

ED 3130 PROGRAMS FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

Design the best programmatic instruments that support the special needs of the children with different characteristics and the way to serve them integrally.
Requirements: None Level: Advanced Credits: 6

ED 3135 WORKSHOP OF INNOVATING PROJECTS

Designing and implementing change projects for the accentuation in pre-school and /or educational orientation that contribute to improve the educational environment.
Requirements: None Level: Advanced Credits: 6

ED 3140 PERSONAL AND FAMILY ORIENTATION

Acquiring theoretical and practical knowledge that train the student to design, carry out and execute Personnel and Family Orientation programs.
Requirements: None Level: Intermediate Credits: 6

ED 3145 PSYCHO-EDUCATIONAL EVALUATION

Applying the conceptual and methodological basis of the evaluation theory to orientation and psycho-educational intervention to support a competent handling of the psycho-pedagogic tests according to a specific educational context.
Requirements: None Level: Intermediate. Credits: 6

ED 3150 PSYCHO-EDUCATIONAL INTERVENTION MODELS

Learning the models for orientation and psycho-pedagogical intervention, their approaches and characteristics in order to elaborate programs according to the specific characteristics of the different education levels.
Requirements: None Level: Intermediate Credits: 6

ED 3155 SCHOOL ORIENTATION AND TUTORIAL ACTIONS

Acquire professional tools to coordinate the school management with the functions of educator, specifically his relationship with the students and the other educators in the school center, besides the family and community.
Requirements: None Level: Advanced Credits: 6

ED 3160 TRAINING MODELS

Designing, carrying out, and evaluating updating programs for parents and teachers with theoretical fundamentals and practical.
Requirements: None Level: Advanced Credits: 6

ED 3165 COUNSELING TO EDUCATION INSTITUTIONS

Learning the models, types and functions of the school counseling to develop understanding of the professor phenomenon in the educational institutions. Developing programs for counseling, orientation, consulting and supervision of the education centers, supported I the models and functions of education counseling.

Requirements: None Level: Advanced Credits: 6

ED 3170 DEVELOPMENT OF SYSTEMS THINKING

Learning the basis of systems thinking carrying out an analysis of the systems theory and cybernetics. Identifying the epistemological important aspects in theory and the main trends that result from it.

Requirements: None Level: Basic Credits: 6

ED 3175 PROFESSIONAL PRACTICE DE LPP

Facilitate in a systemic manner the approach of the student with the professional media so that may strengthen their knowledge and develop the abilities observing the future exercise in the profession.

Requirements: None Level: Advanced Credits: 6

ED 3180 FINAL EVALUATION PROGRAM LPP

Elaborate a project of education orientation that allows integrating the knowledge skills and specific attitudes of a Bachelor in Psycho-pedagogy.

Requirements: None Level: Advanced Credits: 6

Department of Nursing

EM 1001 NURSING I (INTRODUCTION TO NURSING)

The origin, evolution and current concept of the nursing profession process is reviewed, its relationship with similar disciplines; likewise its work field. Fundamental principles of medical asepsia; surgical, safety and its application in the basic nursing procedures.

Requirements: None Credits: 12 Level: Basic

Knowledge area: Nursing Science

EM 1002 COMMUNITY NURSING

The importance of Community Nursing is reviewed and the processes in rendering nursing services to stimulate and promote the wellbeing of people respecting their cultural context. The wellbeing model and health promotion are reviewed. The skills for work techniques for community nursing are developed, in formation, health promotion and illness prevention.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 1003 ANATOMY AND PHYSIOLOGY I

Studies classification, description of the structures, skeletal-muscle operation, organs and human systems..

Requirements: None Credits: 5 Level: Basic

Knowledge area: Nursing Sciences

EM 1004 SOCIAL ANTHROPOLOGY

Basic concept of anthropology, objective of study, division, relation of similar sciences, Social Anthropology and its application in nursing. Family dynamics in traditional medicine and herbal indigenous concepts of current use and therapeutic resources.

Requirements: None Credits: 3 Level: Baccalaureate

Knowledge area: Nursing Sciences

EM 1005 MEDICAL ETYMOLOGIES

Linguistic background, word functions, importance of etymology, origin, morphologic elements concept, Latin and Greek, general functions, roots, prefixes, suffixes and medical terminology more usual in organs and the subject of human being.

Requirements: None Credits: 3 Level: Basic

Knowledge area: Nursing Sciences

EM 1006 MICROBIOLOGY AND PARASITOLOGY

Growth, development and multiplication of the micro organisms and parasites.

Participation of man in its homeostasis that may alter due to weather, fermentation, decomposition, environment and its impact on health.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 1007 PUBLIC HEALTH

The health needs of the country are studied, concept of public health, importance and field for action, natural history of the illness, levels of attention and health prevention, demographic and epidemiological profiles, indications, resources for health and existing programs.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 1008 PRACTICES ON COMMUNITY NURSING

Includes the clinics and health centers where they carry out a study of the community, providing lectures of the different health programs and how to prevent illnesses, through home visits.

This practice is carried out 5 hours per day, 2 days per week during 16 weeks.

Requirements: None Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 2001 NURSING II (NURSING FOUNDATIONS)

General concepts on hospital and its classifications, hospital atmosphere, patient check in, medical examination.

Integration of theoretical foundations of Anatomy and microbiology, different techniques and procedures are taught, the hygiene patterns, comfort, safety, nourishment, elimination.

Requirements: EM-1001 Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 2002 NURSING ATTENTION PROCESS

The fundamentals of the attention process are reviewed, as the work method for nursing from assessment and analysis to nursing diagnosis, planning and care and implementation and evaluation of the attention provided to the person, practice is identified, professional, independent, different, interdependent.

Requirements: EM-1001 Credits: 4 Level: Basic

Knowledge area: Nursing Sciences

EM 2003 ANATOMY AND PHYSIOLOGY II

Study, classification, structure description and organ and human systems functions.

Requirements: EM-1003 Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 2004 HUMAN RELATIONS

The interpersonal relations through an interpretation that lead to improve self-image, self-management, activities and values influence of personal behavior in others' in order to grow and have positive influence in the environment.

Requirements: EM-1004 Credits: 4 Level: Baccalaureate

Knowledge area: Nursing Sciences

EM 2005 HEALTH EDUCATION I (GENERAL DIDACTICS)

Importance of learning and the factors that take part, in the relevance of motivation to produce learning, teaching methods, teaching-learning process, adjectives for learning, application of taxonomy in evaluation, auxiliary didactic techniques; all this to promote health and precaution in nursing.

Requirements: None Credits: 5 Level: Basic

Knowledge area: Nursing Sciences

EM 2006 NURSING CLINICAL PRACTICES II

In the hospital practice the objective is acquiring skills in basic nursing procedures such as: oxygen therapy, forced feeding, intestinal and bladder elimination, handling ostomy and blood transfusion. This practice is carried out 8 hours, 2 days per week during 16 weeks.

Requirements: EM-1008 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 3001 MOTHER – CHILD NURSING I

The theoretical elements necessary are reviewed to provide assistance in nursing to women in the pre-birth period, pregnancy, birth, puerperium to the newborn; likewise in the most common complications existing in these periods.

It is included the attendance of nursing in gynecological procedures and degenerative, using the Nursing Attention Process as a working method.

Requirements: EM-2001 Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 3002 OBSTETRICS AND GYNECOLOGY

Normal pregnancy, the anatomic changes, physiological that women suffer, the importance of pre-birth attention and complications that may happen during pregnancy, birth. Clinical course on birth, puerperium and breast feeding, as well as women illnesses.

Requirements: EM-2003 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 3004 PHARMACOLOGY

General overview of Pharmacology history, concepts on pharmaceutical presentations, administration type, effects, action, interaction, absorption, distribution, biotransformation, and extension of drugs in the human body.

Requirements: CB-1410 Credits: 5 Level: Basic

Knowledge area: Nursing Sciences

EM 3005 HEALTH EDUCATION II (EDUCATION PROGRAMMING)

Theoretical elements of education, characteristics of educator, andragogic theories, self-care, change, and Education programming, to be applied in health education.

Requirements: None Credits: 4 Level: Basic

Knowledge area: Nursing Sciences

EM 3006 CLINICAL PRACTICES FOR MOTHER-CHILD NURSING

Focus the student in the nursing activities, in clinical practice of the areas of tocosurgery, hospitalization, gynecobstetrics, pre-birth control, timely cancer detection, cervix-uterus and breast, family planning, with the purpose of forming integrally, such practices shall be carried out covering 15 hours per week in the hospital assigned during 16 weeks.

Requirements: EM-2006 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 4001 PEDIATRIC NURSING

The growth and development characteristics are covered, development of risk factors during childhood, bases and principles of pediatric attention, pediatric patient unit, emotional state of hospitalized child, specific procedures in nursing, dosage and mycosis, in medication administration, Nursing Attention Process in pediatric patient, to adjust, systematize the care and, responding to humanitarian responses of the child.

Requirements: EM-1008 Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 4002 PEDIATRIC PATHOLOGY

Theoretical elements to value the characteristics of newborn in exploration, function, graphic of growth and development of vaccination record and normal and abnormal procedures in laboratory tests, mostly used physio-pathologic changes that operate in organs, system of clinical manifestation and treatments.

Requirements: EM-3002 Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 4004 LEGAL NURSING (DEONTOLOGY Y LEGISLATION)

The professional nursing practice is analyzed in a juridical way, the different roles and different environments to operate, human rights document, children rights, women's rights, hospitalized patient's rights.

Requirements: EM-3003 Credits: 4 Level: Basic

Knowledge area: Nursing Sciences

EM 4005 CLINICAL PRACTICES FOR PEDIATRIC NURSING

In order to form the student integrally, there is a Clinical Practice every semester. It includes the Pediatrics and infectology area, providing the immediate and mediate cares for every newborn, as well as giving nursing assistance in the most frequent child pathologies, this practice is carried out 15 hours during one week for 16 weeks.

Requirements: EM-3006 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 5001 MEDICAL-SURGICAL NURSING I

The participation of nursing as an important health element, applying the Nursing Attention Process in the different problems in organisms, nursing attention; focusing control and electrolytic balance, skin problems and allergies.

Requirements: EM-4001 Credits: 10 Level: Basic.

Knowledge area: Nursing Sciences.

EM 5002 MEDICAL-SURGICAL PATHOLOGY I

The illnesses of organs and systems in the body are reviewed, the importance of an electrolytic control; as well as the skill illnesses, some immune problems and allergies, etiology, risk factors, clinical manifestations, diagnosis and treatment.

Requirements: EM-4001 Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 5003 NURSING BIOETHICS

Main ethical principles necessary to give an opinion representing the nursery practice. Human behavior, freedom, moral science, responsibility, goodness, value and end, pleasure, moral determining conventionalism: they are investigated and judgments given regarding the moral problems related with life, health and reality. Code of ethics in nursing.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 5006 CLINICAL PRACTICES IN MEDICAL-SURGICAL NURSING I

This practice is carried out 8 hours per day with 2 frequencies per week during 16 weeks. It covers application of the theoretical knowledge of the Medical Surgical Pathology I program and Medical Surgical Nursing II in areas such as: Internal Medicine Endoscopy, inhala-herapy, EKG, External Practice, Emergencies, as well as visiting with the doctor, starting a conversation about the illness of the patient, will give psychologic and spiritual support to the patient and relatives.

Requirements: EM-4005

Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 6001 MEDICAL-SURGICAL NURSING II

The participation of the nurse providing an integral attention to the patient in the pre-trans and post-operative as well as the attention to the patient in critical state, importance of applying PAE in the different illnesses in the human body; as well as going ahead in the different modalities in treatment of cancer such as problems in the affections of S.N.C.

Requirements: EM-5001

Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 6002 PATHOLOGY MEDICAL-SURGICAL II

The different illnesses are reviewed, there is surgical intervention required in the different organs and systems, illness in the skeletal-muscle system, hematological, as well as learning the different therapeutics and modalities used in treatment of cancer and the problems in S.N.C.

Requirements: EM-5002

Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 6003 THANATOLOGY

General concepts about Thanatology. The cultural aspects are reviewed, related with psychological death of the chronic patient and the family.

The good death, mourning, euthanasia, palliative care, psychological and spiritual evaluation, basis to improve communication with the terminal patient, importance of communication, assistance from nursing, symptom control, pain management and attention to the family.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Nur

sing Sciences

EM 6004 INVESTIGATION IN NURSING I

Importance of research within the discipline of nursing, the scientific method is reviewed and its integration to reach growth. Each of the research steps are analyzed

Requirements: EM-2005 Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 6005 NURSING SERVICES MANAGEMENT I

Includes general concepts in management, administrative process stage, planning, organization direction and central, leadership theory, motivation and difference subject within the organization, in health identify the nursing department, its importance, positive philosophy, objective, characteristic. Levels and personal positions, calculation and personnel, material and equipment.

Requirements: EM-2005

Credits: 5 Level: Basic

Knowledge area: Nursing Sciences

EM 6006 CLINICAL PRACTICES FOR MOTHER-CHILD NURSING II

This practice is carried out 8 hours per day with 2 frequencies per week during 16 weeks. Includes the application and reinforcing of theoretical knowledge of the Medical Surgical Pathology II program with 2 frequencies per week during 16 weeks. Includes the application and reinforcing of theoretical knowledge of the Medical Surgical Pathology II program and Medical-Surgical Nursing II. Including the areas of : hospitalization, Surgery Room, Emergencies, Intensive Care, being able to achieve an identification of the different pathologies in the human body applying a P.A.E.

Requirements: EM-5006

Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 7001 PSYCHIATRIC NURSING

Principles and fundamentals of Psychiatric nurse, theory of personality, uses the Nursing Attention Process as a work method.

The interventions in the different types of crisis in nursing are reviewed.

The psychology knowledge is integrated to establish a theoretical support to elaborate the nursing diagnosis and the care plan in the patients with mental affections.

Requirements: EM-6001

Credits: 10 Level: Basic

Knowledge area: Nursing Sciences

EM 7002 PSYCHIATRY

The behavior elements and personality are analyzed, emotional alterations during pregnancy, birth or puerperium, alterations in childhood, adolescence, in adulthood and old age; his prevention treatment and rehabilitation as well as the impact of the illness in the family and/or community. Pathologies that alter sexual behavior are reviewed and their psychiatric implication, diagnosis method and most used treatment in the attention of the psychiatric patient.

Requirements: EM-6002

Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 7003 NURSING THEORIES

Interpretation, reflection and analysis of the Nursing theories, most outstanding, pointing out the scientific fundamentals for theoretical construction, conceptual models, great theories and middle level theories of the main thinkers in nursing.

The origin is reviewed, evaluation of the models more accepted to guide research, practice and teaching of nursing; sources of support for the design to be theoretical model, concepts and theoretical statements, scopes and applications or criticism among the nursing scientific community.

Requirements: EM-6001 Credits: 4 Level: Basic

Knowledge area: Nursing Sciences

EM 7004 NURSING SERVICES MANAGEMENT II

the theoretical elements are reviewed to carry out the situational diagnosis of a service that serves as basis for the elaboration of a work program..

the personnel evaluation methods are analyzed, the quality of the attention, procedures, as well as the methodological techniques of the work organization and human resources; all this serves as support to collaborate in the direction of nursing attention.

Requirements: EM-6005 Credits: 4 Level: Basic

Knowledge area: Nursing Sciences

EM 7006 PRACTICES IN PSYCHIATRIC NURSING

Covers the clinical field of the psychiatric hospital where the student will learn the basic techniques in psychology, patient and relative attention, intervention during crisis and establishing a functional communication and therapeutic with the psychiatric patient. This practice is carried out 5 hours per day, per week during 16 weeks.

Requirements: EM-6006 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 8001 INTERNSHIP IN NURSING

The course confronts the student with the work sector, his knowledge, skills, values and attitude are integrated and consolidate when interacting with the interdisciplinary team in the attention of the person.

The professional roles are put into practice, assistance and research .

Requirements: EM-1008 Credits: 12 Level: Basic

Knowledge area: Nursing Sciences

EM 8002 INVESTIGATION IN NURSING II (PEF)

Techniques for gathering data, pending to scientific analysis and objective of a research project and the critical analysis of the results that allow elaborating responses for the solution of problems in their professional roles with a scientific foundation.

Requirements: EM6004 Credits: 6 Level: Basic

Knowledge area: Nursing Sciences

EM 8003 VALUES

Privilege the construction of a moral thinking, autonomous, fair and solidary.

Requirements: PS-2180 Credits: 5 Level: Baccalaureate

Knowledge area: Nursing Sciences

EM 8004 EDUCATION IN NURSING

Institutionalization processes and education; nature and specificity of education, socialization for the professional performance, teaching model, teaching function of clinical teaching of nursing, detection of needs in Education in Nursing.

Theoretical and methodological considerations, curriculum, didactic instrumentation of class work, evaluation and process.

Requirements: EM-3005, ED-3065

Credits: 12 Level: Optional

Knowledge area: Nursing Sciences

EM 8005 MOTHER-CHILD NURSING II

Pregnancy, genetics, conception and fetus development, Anatomy and Physiology of pregnancy. Mother nutrition and fetal; nursing care in the first, second and third quarter during pregnancy, factors and essential processes of birth, pain treatment, fetal monitoring, first, second, and third stage of birth, physiology of post-birth, valoratio and nursing care of the newborn and mother, mother and newborn care at home.

Requirements: EM-3001, CB-2365

Credits: 6 Level: Optional

Knowledge area: Nursing Sciences

EM 8006 HEALTH IN THE JOB NURSING

Will identify the epidemiological surveillance process, risk factors and the application of safety and hygiene in the job.

Requirements: EM8009

Credits: 6 Level: Optional

Knowledge area: Nursing Sciences

EM 8007 ONCOLOGIC NURSING

Anatomy and Physiology of organs and system, with oncological affections. Physiopathology of oncologic illnesses with greater mortality incidence. Nursing Attention Process, valoration, diagnosis, implementation and evaluation of nursing in patient with oncologic illness and legal and ethical framework.

Requirements: EM-6001, EM8011

Credits: 6 Level: Optional

Knowledge area: Nursing Sciences

EM 8008 HEALTH ECONOMICS

Provides a theoretical, methodological and technical framework of the economy applied to the health systems.

Requirements: None Credits: 6 Level: Optional

Knowledge area: Nursing Sciences

EM 8009 HEALTH ECOLOGY

The student will learn and apply appropriately strategies basic of ecology and its relationship with health to establish mechanism, appropriate methodologies and critical routes of the environmental risks and those that are originated by the same anthropogenic activity, in order to establish disciplinary correlations and topics that are required to improve health and wellbeing, through stimulation of the individual and collective critical analysis, through social participation for the improvement of current and future life.

Requirements: None Credits: 6 Level: Basic

EM 8010 REPRODUCTIVE HEALTH

Will understand the normal processes of human development; as well as Understanding the reproductive processes.

Requirements: None Credits: 6 Level: Basic

EM 8011 HEALTH AND DAILY USED CHEMICALS

Evaluating the effects on health, of chemicals contained in the substance used every day such as preservatives, make up, hair color, solvents, cleaners, etc

Requirements: None Credits: 6 Level: Basic

EM 8012 BIOLOGY AND ETIOLOGY

Obtaining a broad vision of the structures and vital processes of the body and in the framework of etiology understand the biological basis for animal behavior since it studies their behavior as a result of genetics interaction, individual and evolution of the live organisms.

Requirements: None Credits: 6 Level: Basic

Department of Physics and Mathematics**FM 0500 MATHEMATICAL REASONING**

Developing the basic strategies for problem solution that require the use of mathematics and Understanding the basic concepts of group theory, numerical systems, algebra and geometry to be applied in real problem solution that involves the use of mathematical reasoning.

Requirements: That students are conditioned

Credits: 6 Level: Conditioned students

Knowledge Area: Mathematics

FM 0550 LOGIC, ARITHMETIC AND ALGEBRA

Reminding arithmetic and algebra concepts that allow the student to build the basis and develop skills to be used in further mathematics courses.

Requirements: Points in PAA (RM > a 450 y < a 500)

Credits: 6 Level: Propedeutic

Knowledge Area: Mathematics

FM 0650 GENERAL PHYSICS

Learning the methodology of natural sciences, in particular physics, besides the elemental foundations of kinematics and dynamics.

Requirements: No accrediting the Placement Exam

The students from UDEM High School do not take the placement exam in physics. The students from other High Schools with average ≥ 8 do not take the placement exam in physics.

Credits: 6 Level: Propedeutic Knowledge Area: Physics

FM 1110 BASIC ELECTRONICS

Learning and Understanding the basic principles of electronic engineering and its applications through electronic components with the largest application such as resistor, capacitor, transistor and the application of integrated circuits.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Physics

FM 1120 ASTRONOMY

Structure a conception of the Universe, relating the different structures involved with the magnitudes of space and time while they occur, explaining the phenomena which are the origin. Study conceptually physical phenomena that help in Understanding Nature. Follow the movement of objects in the sphere from the stand point of the Earth. Comparing the different characteristics of the planets and objects in our Solar System. Studying the star evolution and the structure and history of the Universe.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Physics

FM 1125 ASTRONOMY II

Learning the techniques and the methods used currently in astronomy in the search for extraterrestrial life. Analyze and apply the concepts learned in the Astronomy course. Studying the characteristics that define a living being and the circumstances that started life on Earth. Analyzing the different places and circumstances in our Solar System where life could develop. Observing the probabilities and possibilities of finding intelligent life in the galaxy and the circumstances that difficult contact between extraterrestrial civilizations. Observe the philosophical and cultural implications that humanity would have with a true extraterrestrial contact.

Requirements: FM 1120 Astronomy Credits: 6 Level: Basic

Knowledge Area: Physics

FM 1140 MATHEMATICAL LOGIC

Understanding the abstract language of logical calculation, their manipulation and operations in order to achieve a syntactic analysis, semantic and symbolic of every verbal and numeric discourse.

Requirements: FM 1190 Computer Mathematics

Credits: 6 Level: Basic Knowledge Area: Mathematics

FM 1150 DIFFERENTIAL CALCULUS

Understanding the fundamental principles of graphs, limits and derivatives of functions to apply them in problem solution.

Requirements: FM 0550 Logic Arithmetic and Algebra or points in the PAA ($RM \geq 500$).

Credits: 6 Level: Basic

Knowledge Area: Mathematics

FM 1155 MECHANICS IN THE EVOLUTION OF TECHNOLOGY

Learning the evolution of science and technology in the old times through the analysis of the applications to transportation, construction, machinery, war, agriculture and tool design.

Requirements: Simultaneous a FM 1210 Classical Mechanics

Credits: 6 Level: Basic Knowledge Area: Physics

FM 1180 STATISTICS AND ITS INTERPRETATION

Applying in the analysis and interpretation of quantitative information, the basic elements of statistic and probability, being as the group and graphical representation of data, the descriptive measurements, the exploratory analysis of data, the probability distributions, the classical theory of estimation and test, correlation and regression and non-parametric tests.

Requirements: FM 0550 Logic Arithmetic and Algebra or points in the PAA ($RM \geq 500$)

Credits: 6 Level: Basic Knowledge Area: Statistics

FM 1190 COMPUTER MATHEMATICS

Understanding the basic concepts of theory of problem resolution. Classical algebra: groups, relations and functions, Boole algebra and Boolean expressions, congruency, equations and equation systems for module n ; to be applied in problem solution as in other Computer Sciences courses.

Requirements: FM 0550 Logic Arithmetic and Algebra or points in the PAA ($RM \geq 500$).

Credits: 6 Level: Basic Knowledge Area: Mathematics.

FM 1210 CLASSICAL MECHANICS

Understanding the basic concepts of Classical mechanics in order to analyze, explain and predict the kinematic or dynamic state of a body, in one, two, or three dimensions.

Requirements: FM 0650 General Physics or come from UDEM High School or from High School with a physics average of ≥ 8 y FM 1150 Differential Calculus

Credits: 6 Level: Basic Knowledge Area: Physics

FM 1230 LINEAR ALGEBRA

Applying matrix algebra, as well as the fundamental concepts of vectorial spaces and linear transformations for future applications in the study of linear models in the different areas.

Requirements: Having completed 72 credits

Credits: 6 Level: Basic Knowledge Area: Mathematics

FM 1240 MATRIX ALGEBRA AND LINEAR PROGRAMMING

Learning the concepts of matrix algebra and apply in the solution of linear equation systems, besides learning the linear programming in decision making and selecting the most appropriate technique to identify, and solve problems with variables that are linearly related, trying to optimize an objective function subject to restrictions.

Requirements: FM 0550 Logic Arithmetic and Algebra or points in the PAA ($RM \geq 500$).

Credits: 6 Level: Basic

Knowledge Area: Mathematics

FM 1250 INTEGRAL CALCULUS

Understanding the foundations of integrals, the techniques for integration and the infinite series and their properties to apply in problem solutions.

Requirements: FM 1150 Differential Calculus

Credits: 6 Level: Basic Knowledge Area: Mathematics

FM 1260 DIFFERENTIAL AND INTEGRAL CALCULUS

Understanding the basic elements of charges, limits, derivates and integrals in algebraic functions, exponential, and logarithmic to be applied in the solution of problems in the business area.

Requirements: FM 0550 Logic Arithmetic and Algebra or points in the PAA ($RM \geq 500$)

Credits: 6 Level: Basic

Knowledge Area: Mathematics

FM 1280 MULTIVARIED ANALYSIS

Developing the statistical skills in the application of the sampling methods of Multivariate Analysis in the solution of problems related with analysis for Market Research. Applying the basic knowledge for the use of the computer in the solution of problems that involve Multivariate Analysis.

Requirements: FM 1180 Statistics and its Interpretation y IN 3400 Linear Programming Applied to Management y AD 1820 Market Research

Credits: 6 Level: Intermediate

Knowledge Area: Statistics

FM 1290 CLASSICAL MECHANICS LABORATORY

Learning the basic notions of Experimental Physics through a group of forming practices that include measurement techniques used in Physics.

Requirements: Simultaneous a FM 1210 Classical Mechanics or having accredited

Credits: 3 Level: Basic Knowledge Area: Physics

FM 1330 DISCRETE MATHEMATICS

Applying the basic formal knowledge of Discrete Mathematics: relations and graphos; in the establishment and solution of problems in the area of computer sciences

Requirements: FM 1140 Mathematical Logic

Credits: 6 Level: Intermediate

Knowledge Area: Mathematics

FM 1350 DIFFERENTIAL EQUATIONS

Apply the different methods to solve ordinary and partial Differential Equations and apply them in the solution of diverse problems.

Requirements: FM 1250 Integral Calculus

Credits: 6 Level: Basic Knowledge Area: Mathematics

FM 1370 PROBABILITY AND STATISTICS

Apply the fundamentals of the theory of probabilities and mathematical statistics (random variables, mathematics, discrete distributions and continuous of probability, sample distributions, theory of estimates, classical theory of test and non-parametric methods) in the solution of problems in the engineering area.

Requirements: FM 1180 Statistics and its Interpretation y FM 1250 Integral Calculus

Credits: 6 Level: Basic

Knowledge Area: Statistics

FM 1380 NUMERIC METHODS

Apply the basis of the Numeric Methods to solve problems in obtaining roots from equations, interpolation, correlation, equation systems by iterative methods, differentiation and numeric integration and solution to Differential Equations through the use of computer resources.

Requirements: SC 1380 Programming Principles, y FM 1350 Differential Equations y FM 1390 Advanced Calculus

Credits: 6 Level: Intermediate Knowledge Area: Mathematics

FM 1390 ADVANCED CALCULUS

Apply the elements of Differential and Integral Calculus in functions of several variables, coordinate systems, space geometry and complex variable in the solution of problems in science and engineering.

Requirements: FM 1250 Integral Calculus

Credits: 6 Level: Basic Knowledge Area: Mathematics

FM 1420 FLUIDS AND THERMODYNAMICS

Apply in problems in science and engineering , the main laws that govern the ondulatory movement, fluid mechanics, gas theory and Thermodynamics.

Requirements: FM 1250 Integral Calculus.

Credits: 6 Level: Basic Knowledge Area: Physics.

FM 1520 ELECTRICITY AND MAGNETISM

Understanding the laws and principles that govern the bodies when they are subject to the influence of electric and magnetic fields as well as the relationship existing between electricity and magnetism.

Requirements: FM 1250 Integral Calculus y FM 1210 Classical Mechanics

Credits: 6 Level: Intermediate Knowledge Area: Physics

Department of Humanities

HU 3000 MEXICAN STUDIES: SOCIETY AND CULTURE

Learning y Analyzing, as a result of the historic events, social and cultural manifestations of the immediate reality and contemporary and from there appreciate and value the social and cultural characteristics of society.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: General studies.

HU 3005 MEXICAN STUDIES: ECONOMICS AND POLITICS

Promote and motivate the students interest through knowledge and analysis of the economic and political contemporary reality of Mexico.

Requirements: None. Credits: 6 Level: Basic

Knowledge Area: General studies

HU 3010 INTRODUCTION TO PHILOSOPHY

Discovering philosophy as a specific way of thinking and being. The ideas of the key philosophers in Western history will be used, from the Greeks to the XX Century, to emphasize the uniqueness of philosophical thinking in the areas of knowledge from where the philosophical questions have been made along history.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Philosophy

HU 3015 PHILOSOPHY AND SCIENCE

Reviewing the way in which what is called “science” was established, through learning some events and important characters of Western history. Criticizing the different theories about specificity of science analyzing the methodological problems that science has found. Discussing ethical problems in reference to scientific contemporary advances.

Requirements: None. Credits: 6 Level: Basic

Knowledge Area: Philosophy

HU 3020 SOURCES OF WESTERN LITERATURE

Studying the beginning, development and transformation of Western literature through reading of texts whose representative nature makes them fundamental.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Literature

HU 3025 LITERARY ARCHETYPES

Analyzing works whose impact in further stages makes then transcend up to now so the student may understand that every text starts as a response to previous texts.

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Literature

**HU 3030 RUPTURE AND CONTINUITY IN LITERATURE:
PERSPECTIVES NINETEENTH PERIOD**

Evaluating works from this period in order to verify the literary influence process of canonic works. Analyzing the literary movements that influence in Latin American modernism, echoes that still impact Latin American Literature in the XX Century.

Requirements: None Credits: 6 Level: Basic Knowledge Area: Literature

HU 3035 CONTEMPORARY SCHOOLS FOR HUMANISTIC THINKING

Analyzing the different humanistic Western and Mexican thinkers of the contemporary age, in the Humanities field.

Requirements: None Credits: 6 Level: Basic Knowledge Area: Humanities

HU 3040 GLOBAL COMPETENCIES

Developing the competency to synthesize, discuss and persuade in regards to a proposal and / or project..

Requirements: 150 Credits: 6 Level: Intermediate (vertebration with masters).
Knowledge Area: General studies

HU 3045 PHILOSOPHY IN THE FACE OF CURRENT HUMAN PROBLEMS

Describing and analyzing the current linkages between the most urgent problems in humanity and the philosophical concepts for their solution.

Requirements: None Credits: 6 Level: Intermediate
Knowledge Area: Philosophy

HU 3050 LATIN AMERICAN PHILOSOPHY

Learning the fundamental features of the philosophic speech in Latin America in its genesis, projection, development and completion. Reviewing the most relevant problems and analyze the future possibilities in the Latin American Philosophy

Requirements: None Credits: 6 Level: Intermediate
Knowledge Area: Philosophy

HU 3055 XX CENTURY LITERATURE

Analyzing the literary works that are an example of emancipation of the structural formulas and limitations that narrative achieves, as well as the socio-cultural conditions and thinking trends that surround the genesis and appearance of each work.

Requirements: None Credits: 6 Level: Intermediate
Knowledge Area: Literature

HU 3060 THE MAGIC AND FANTASTIC IN LATIN AMERICAN LITERATURE: MODERNISM AND ITS EPIGONS

Understanding and analyzing the uniqueness of modernism in Latin America and analyze the participation of this movement in the works of the great artists in the XX Century.

Requirements: None Credits: 6 Level: Intermediate
Knowledge Area: Literature

HU 3065 HISTORY OF THE IDEAS IN LATIN AMERICA

Studying the development of European and Latin American thinking around the conception of the identity of our America and its utopian content.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Literature and Philosophy

HU 3070 GLOBALIZATION AND CULTURAL CHANGES

Learning the main theoretical approaches about the phenomenon of globalization and analyze the impact that this process has generated on the national and local cultures.

Requirements: None Credits: 6 Level: Intermediate Knowledge Area: Humanities

HU 3075 DEVELOPMENT OF THE CONTEMPORARY FAMILY

Learning the evolution of Mexican family , determining its origin and the different topics and behaviors that exist in contemporary family life.

Requirements: None Credits: 6 Level: Intermediate Knowledge Area: Sociology

HU 3080 STUDY OF WOMEN AND FAMILY

Analyzing the new problems addressed by sociology where the gender topics constitute a cornerstone of the studies and contemporary discussions regarding woman and family.

Requirements: None Credits: 6 Level: Intermediate Knowledge Area: Sociology

HU 3085 CONTEMPORARY SOCIAL THINKERS

Studying the trends, and contemporary theories in the social, political, economic and philosophical environments to understand the current social problematic.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: Humanities

HU 3090 STUDY OF THE RELIGIONS

Understanding the integral formation of man through the analysis of primitive cultures up to the great universal religions and salvation. Learning the nature and meaning of the religious phenomenon as one of the constituting elements and originated in every culture.

Requirements: None Credits: 6 Level: Intermediate Knowledge Area: Sociology

HU 3095 NORTHEASTERN CULTURE

Learning and valuing the roots and development of the Northeastern culture since its first manifestations in the XVI Century to date.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: History

HU 3100 NORTHEASTERN STUDIES

Analyzing the economic, political, social processes in the Mexican Northeast from the historical perspective from 1850 to 2000.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: History

HU 3105 HISTORY OF THE BORDER BETWEEN MEXICO AND THE UNITED STATES IN THE XX CENTURY

Learning the history of this important area with attention in the conditions and social, economic and political changes during the XX Century.

Requirements: None Credits: 6 Level: Intermediate

Knowledge Area: History

HU 3110 SOCIAL THINKING OF THE CHURCH

Learning and analyzing the position of the Catholic Church in regards to the great debates of contemporary societies and the political-economical systems in terms of social fairness. Linking that posture with the concept of human being and person that underlies every Christian thought.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: General studies

HU 3115 GLOBAL SCENARIOS, TRENDS, AND DILEMMAS

Developing skills to read the scenarios that are generated in the globalization process, visualizing the trends that result, identify the ethical dilemmas that globalization brings and take a posture in front of them.

Requirements: Having completed 150

Credits: 6

Level: Advanced (vertebration with graduate programs)

Knowledge Area: General studies

HU 3120 POST-MODERNISM

Describing the impact that post-modern trends have in our contemporary society. For this, the essential characteristics of this “movement” will be analyzed in the light of the historical origins and further variations, expectations and impact in the construction of a new interpretative trend which doubts of objectivity..

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Philosophy

HU 3125 SEMINAR ON PHILOSOPHIC TOPICS

The student will be able to carry out an investigation project in the philosophy area according to the academic research criteria.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Philosophy

HU 3130 SEMINAR ON LITERATURE

Developing and concluding a research project that integrates the knowledge acquired in the literary area.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Literature

HU 3135 SEMINAR ON HISTORY

Stimulating the historical research, providing the student with the fundamental instruments for research.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: History

HU 3140 GUIDED PROFESSIONAL PRACTICE DE LEHS

It is carrying out a work similar to the one that the graduate will perform in his professional life. Shall be covered in 180 hours during one semester in an institution with which UDEM establishes an agreement to receive students.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Practice and Evaluation

HU 3145 FINAL EVALUATION PROGRAM LEHS

Project carried out during the last semester in which the knowledge, skills and behaviors acquired during the degree are put into practice, enabling closing the study program. With this program the student will integrate and evaluate the knowledge, skills and behaviors acquired during the degree.

Requirements: None Credits: 6 Level: Advanced

Knowledge Area: Practice and Evaluation

Department of Modern Languages

ID 2500 BASIC ENGLISH-ELEMENTARY

Acquiring the initial knowledge of the English language emphasizing comprehension, pronunciation and reading.

Requirements: Placement exam Credits: 3 Level: Basic

ID 2505 ENGLISH BASIC-MIDDLE

Writing simple statements, introduction to knowledge of other objects and closed areas; as well as hearing comprehension.

Requirements: Placement exam o English basic-elementary

Credits: 3 Level: Basic

ID 2510 ENGLISH BASIC-HIGH

Introduction to written comprehension, knowledge of open areas, hearing comprehension and general language.

Requirements: Placement exam o English Basic-Middle

Credits: 3 Level: Basic

ID 2515 ENGLISH INTERMEDIATE-ELEMENTARY

Pronunciation perfecting, reading newspaper articles and composition.

Requirements: Placement exam o English Basic-High

Credits: 3 Level: Basic

ID 2520 ENGLISH INTERMEDIATE

Reading books (general), listening to music and more complex writing.

Requirements: Placement exam o English Intermediate-elemental

Credits: 3 Level: Basic

ID 2525 ENGLISH INTERMEDIATE-ALTO

Introduction to specialized language, expressions and dialogue in the work area.

Requirements: Placement exam o English Intermediate

Credits: 3 Level: Basic

ID 2530 ENGLISH ADVANCED

Emphasis in specialized language, complex, getting familiar with movies and writing.

Requirements: Placement exam o English Intermediate-High.

Credits: 3 Level: Basic.

ID 2535 ENGLISH ADVANCED-SUPERIOR

Reading specialized topics, movie understanding and advanced writing.

Requirements: Placement exam o English advanced

Credits: 3 Level: Basic

ID 2540 INTENSIVE FORMATION FOR TOEFL SUCCESS

Preparing the student for TOEFL Institutional exam, with the objective of obtaining 550 points. Evaluate exam format, kinds of questions and strategies to determine the correct answer. Taking examples of exams in similar situations.

Requirements: Placement exam o ID 2535 Credits: 6 Level: Basic

ID 2545 SPANISH L2 BASIC (FOR FOREIGNERS)

Learning the grammar structures, ant the sociolinguistic elements of the basic and Intermediate levels. Examine and Understanding the culture of Spanish speaking countries.

Requirement: None Credits: 6 Level: Basic

ID 2550 BASIC COMMUNICATION IN SPANISH L2 (FOR FOREIGNERS)

Practice the grammar structures and the sociolinguistic elements of the basic and Intermediate levels. Understanding the socio-cultural elements of the speaking actions in the Spanish speaking countries for a successful performance in daily situations.

Requirement: None Credits: 6 Level: Basic

ID 2555 LIFE AND CULTURE OF MEXICO (TAUGHT IN ENGLISH)

Learning and Understanding the relevant aspects of daily life, popular culture, traditions, politics, history and economy of contemporary life in Mexico.

Pre-Requirement: None Credits: 6 Level: Basic

ID 2560 SPANISH L2 INTERMEDIATE (FOR FOREIGNERS)

Examine and understand the grammar structures, vocabulary and sociolinguistic elements of the Intermediate and advanced levels.

Requirement: Placement exam Level Intermediate

Credits: 6 Level: Basic

ID 2565 COMMUNICATION INTERMEDIATE IN SPANISH L2 (FOR FOREIGNERS)

Apply the grammar structures, vocabulary and sociolinguistic elements of the Intermediate and advanced levels. Understanding the elements. The course suggests investigating the relationship of cultural patrimony with the public and private institutions, cities and the territory and citizens' sensitivity for its preservation and valuation. Revision of the international and national standards in the Spanish speaking countries for a successful performance in daily situations.

Requirement: Placement exam Level Intermediate

Credits: 6 Level: Basic

ID 2570 LIFE AND CULTURE OF MEXICO (TAUGHT IN SPANISH)

Learning and Understanding the relevant aspects of daily life, popular culture, traditions, politics, history and economy of contemporary life in Mexico.

Requirement: Placement exam Level Advanced

Credits: 6 Level: Basic: Intermediate

ID 2575 SPANISH L2 ADVANCED (FOR FOREIGNERS)

Learning the grammar structures, vocabulary and socio-linguistical elements of the levels advanced and superior.

Requirement: Placement exam Level Advanced

Credits: 6 Level: Intermediate

ID 2580 ADVANCED COMMUNICATION IN SPANISH L2 (FOR FOREIGNERS)

Apply the grammar structures, vocabulary and the sociolinguistic elements of the levels advanced and superior. Analyzing the socio-cultural elements of the speaking actions in the Spanish speaking countries for a successful performance in daily situations.

Requirement: Placement exam Level Advanced

Credits: 6 Level: Intermediate

ID 2585 Spanish for Business (for foreigners)

Examine and Apply grammar structures, vocabulary and the sociolinguistic elements of advanced and superior levels. Understanding vocabulary and daily situations in the business environment in Latin America. Learning the socio-cultural elements of the speaking actions in the Spanish speaking countries for a successful performance in business situations. Writing effectively documents in the business world.

Requirement: Placement exam Level Advanced.

Credits: 6 Level: Basic: Advanced

ID 2590 SPANISH FOR HEALTH SCIENCES – COMMUNICATION (FOR FOREIGNERS)

Learning the vocabulary and the cultural components necessary to interact with Spanish speaking communities in situations related to health.

Using grammar structures, vocabulary and the sociolinguistic elements of Intermediate and advanced level. Learning the socio-cultural elements of the speaking actions in the Spanish speaking countries for a successful performance in daily situations.

Requirement: Placement exam Level Advanced

Credits: 6 Level: Intermediate

ID 2595 SPANISH FOR HEALTH SCIENCES – READINGS AND CASES (FOR FOREIGNERS)

Using grammar structures, vocabulary and the sociolinguistic elements of advanced and superior levels. Understanding readings from the environment. Learning and analyzing real cases from the environment.

Requirement: Placement exam Level Advanced

Credits: 6 Level: Intermediate

ID 2600 FRENCH BASIC LEVEL-ELEMENTARY

Acquire communication competencies and linguistic skills corresponding to Basic Level in French. Apply the knowledge to daily situations. Examine the culture and the French habits.

Requirement: 550 TOEFL Institutional of Official Credits: 6 Level: Basic

ID 2605 FRENCH BASIC LEVEL-MIDDLE

Acquire communication competencies and linguistic skills corresponding to Basic Level-Middle in French. Expressing facts, actions and circumstances of the past. Learning the French culture, famous characters and songs.

Requirement: French Basic Level-elementary. Credits: 6 Level: Basic

ID 2610 FRENCH LEVEL INTERMEDIATE-ELEMENTAL

Acquire communication competencies and linguistic skills corresponding to an Intermediate-elementary Level in French. Expressing and reporting opinions and ideas. Expressing desires, needs, doubts, moods, and opinions in regards to hypothetical facts, others actions and uncertain events. Learning and understanding the French culture, sayings and literature

Requirement: French Basic Level-High Credits: 6 Level: Intermediate

ID 2615 FRENCH LEVEL INTERMEDIATE-MIDDLE

Acquire communication competencies and linguistic skills corresponding to an Intermediate-middle Level in French. Talking about projects, expressing a hypothesis, situating in time and expressing condition. Learning and understanding the French culture, the evolution of the French language and literature.

Requirement: French Level Intermediate-elementary

Credits: 6 Level: Intermediate

ID 2620 FRENCH LEVEL INTERMEDIATE-HIGH

Acquire communication competencies and linguistic skills corresponding to an Intermediate-High Level in French. Developing in the student the skills for synthesis and summary. Organizing the oral speech. Learning and understanding the French culture, the study of jargon and the familiar expressions and the history of the European Union.

Requirement: French Level Intermediate-middle

Credits: 6 Level: Intermediate

ID 2625 FRENCH CONVERSATION

Developing in the student the discussion and critical skills. Examine and understand current topics and related to France or Europe. Apply specific vocabulary for each subject.

Requirement: French Level Intermediate-middle

Credits: 6 Level: Intermediate

ID 2630 GERMAN BASIC-ELEMENTARY

Acquire communication competencies and linguistic skills corresponding to a Basic Level-middle in German. Practice communication functions of daily life, Learning the culture, geography and history of the German speaking countries.

Requirement: 550 TOEFL Institutional or Official Credits: 6 Level: Basic

ID 2635 GERMAN BASIC-MIDDLE

Acquire communication competencies and linguistic skills corresponding to a Basic Level-middle in German. Express daily situations. Understanding and participating in dialogues and conversations. Learning the culture, geography and history of the German countries.

Requirement: German Basic-elementary Credits: 6 Level: Basic

ID 2640 GERMAN BASIC-HIGH

Acquire communication competencies and linguistic skills corresponding to a Basic Level-High in German. Narration. Writing everyday documents. Learning the culture, geography and history of the German speaking countries.

Requirement: German Basic-Middle. Credits: 6 Level: Basic

ID 2645 WRITING ENGLISH IN PROFESSIONAL ENVIRONMENTS

Learning the formats accepted internationally (C.V.s, reports, memos, e-mails) and analyzing them. Develop in the student the research skills.

Requirement: 550 TOEFL Institutional or Official Credits: 6 Level: Intermediate

ID 2650 ELABORATION AND EXECUTION OF PRESENTATIONS IN ENGLISH - INTERMEDIATE

Develop in the student the synthesis, summary and organization skills. Analyzing the diction, expression and body language. Elaborating presentations.

Requirement: 550 TOEFL institutional or Official.

Credits: 6 Level: Intermediate

ID 2655 ELABORATION AND EXECUTION OF PRESENTATIONS IN ENGLISH - ADVANCED

Understanding the results of the research work and elaborate presentation based on it. Elaborate research work and presenting the results.

Requirement: 550 TOEFL institutional or official and ID 2650 Elaboration and Execution of Presentations in English – Intermediate.

Credits: 6 Level: Advanced

ID 2660 EFFECTIVE COMMUNICATION IN ENGLISH FOR BUSINESS

Learning and understanding the business culture from other countries and the procedures regulations and etiquette acceptable at an international level. Examine and criticize effective communication techniques. Insist in the student the appreciation of others culture.

Requirement: 550 TOEFL institutional or official.

Credits: 6 Level: Intermediate

ID 2665 PSYCHOLOGICAL AND SOCIOLOGIC ANALYSIS IN THE ACQUISITION OF A SECOND LANGUAGE

Examine the psychological and sociologic factors that contribute positively and negatively in learning a second language. Learning theories that will help improve the teaching-learning process of the second language.

Requirement: 550 TOEFL institutional u official and Linguistic Analysis in the Acquisition of a Second Language

Credits: 6 Level: Intermediate

ID 2670 METHODS AND STRATEGIES IN TEACHING ENGLISH AS A FOREIGN LANGUAGE

Examine the methods and learning strategies in teaching of a second language. Analyzing the relevance and functionality of such methods and strategies in the current teaching.

Requirement: 550 TOEFL institutional or official and The Phenomenon of Bi-national Education.

Credits: 6 Level: Intermediate

ID 2675 PRACTICE OF EFFECTIVE METHODS IN TEACHING ENGLISH

Elaborate study plans and for class. Evaluate the appropriate use of strategies, techniques and support material required to support such study plans. Perform the guided practices in the classroom.

Requirement: 550 TOEFL institutional or official and ID 2670 Methods and Strategies in Teaching English as a Foreign Language

Credits: 6 Level: Advanced

ID 2680 EFFECTIVE TEACHING OF RECEPTIVE SKILLS

Learning different teaching techniques for receptive skills (listening and understanding reading). Analyzing their effectiveness through the Guided Professional Practice in classroom.

Requirement: 550 TOEFL institutional or official and ID 2675 Practice of Effective Methods for English Teaching Credits: 6 Level: Advanced

ID 2685 EFFECTIVE TEACHING OF PRODUCTION SKILLS

Learning different teaching techniques for the productive skills (verbal and written). Evaluating their effectiveness through the Guided Professional Practice in classroom.

Requirement: 550 TOEFL institutional or official and ID 2680 Effective Teaching of Receptive Skills. Credits: 6 Level: Advanced

ID 2690 LEGAL TERMINOLOGY IN ENGLISH

Learning and practicing the terminology of the legal field and North American Legal literature.

Requirement: 550 TOEFL Institutional or Official

Credits: 6 Level: Intermediate

ID 2700 MEDICAL TERMINOLOGY IN ENGLISH

Learning and practicing the terminology of the medical field in English

Requirements: 550 TOEFL institutional or official

Level: Intermediate Credits: 6

ID 2705 CONVERSATION PHYSICIAN – PATIENT IN ENGLISH

Learning the socio-cultural regulations that guide the relationship physician – patient in the United States; practice terminology for the Medical field.

Requirements: 550 TOEFL Institutional or official and ID 2690 Medical terminology in English Credits: 6 Level: Intermediate

ID 2710 TECHNICAL TERMINOLOGY IN ENGLISH

Learning and practicing the terminology for engineering in English.

Requirement: 550 TOEFL institutional or official.

Credits: 6 Level: Intermediate

ID 2715 TECHNICAL LANGUAGE PRACTICE IN ENGLISH

Practice the terminology of engineering in English.

Requirement: 550 TOEFL Institutional or Official

Credits: 6 Level: Intermediate

Department of Engineering

IN 1090 QUALITY FUNDAMENTALS

Acquire and apply the knowledge regarding the concepts and key tools of Total Quality Control, including the Quality Assurance Systems, due to the need of changing the mindset required currently in all the disciplines to have the individuals and enterprises achieve an appropriate competitiveness based on quality and continuous improvement.

Requirement: FM 1180 Statistics and its Interpretation

Credits: 6 Level: Basic Knowledge area: Quality

IN 1120 SYSTEMS THEORY

Learning the concepts, development and the key systems thinkers in the organizations.

Requirement: None

Credits: 6 Level: Basic

Knowledge area: Systems Engineering

IN 1140 STATICS

Learning and applying from a vectorial stand point, the relation of forces with particles and rigid bodies, when they are in static equilibrium.

Requirements: FM 1210 Classical Mechanics

Credits: 6 Level: Basic

Knowledge area: Solid Mechanics and Design

IN 1160 FOUNDATIONS OF MATERIALS ENGINEERING

Learning and studying the crystalline structure of the metallic, ceramic and polymer materials, their mechanical and technologic properties as well as the application of the methods to determine them.

Requirements: CB 2355 Chemistry

Credits: 6 Level: Basic

Knowledge area: Materials

IN 1220 DYNAMICS

Learning and applying from a vectorial stand point, the relation of forces with particles and rigid bodies, when they are moving.

Requirements: IN 1140 Statics y FM 1250 Integral Calculus

Credits: 6 Level: Intermediate

Knowledge area: Solid Mechanics and Design

IN 1240 FOUNDATIONS OF MATERIALS MECHANICS

Understanding the physical behavior of the materials used in the manufacturing of mechanical elements and structural members, usually found in practice..

Requirements: IN 1140 Statics

Credits: 6 Level: Intermediate

Knowledge area: Solid Mechanics and Design

IN 1260 MATERIALS ENGINEERING

Learning the metallurgical characteristics of metallic materials or alloys, their phase diagrams and their micro-structure. Design the thermal treatments required for an application in particular. Learning and applying the methodology of the appropriate selection of the materials.

Requirements: IN 1160 Foundations of Materials Engineering

Credits: 6 Level: Intermediate

Knowledge area: Materials

IN 1280 MANUFACTURING PROCESSES

Learning the Manufacturing Processes (from the material to the description and application) used currently in the elaboration of metallic, plastic, ceramic and compound materials products. Learning the trends for the development of modern processes.

Requirements: IN 1260 Materials Engineering

Credits: 6 Level: Intermediate

Knowledge area: Manufacturing

IN 1330 EXPERIMENT DESIGN

Developing the capacity to plan, design and lead experiments in the statistical context. Likewise, acquiring the experience in handling specialized software and the interpretation of its reports as a support in the analysis and decision making and decision making in problems and real cases.

Requirement: FM 1370 Probability and Statistics

Credits: 6 Level: Intermediate

Knowledge area: Quality

IN 1340 MATERIALS MECHANICS

Model and carry out the stress analysis and deformation of the mechanical elements and basic structural members that tend to be in the daily practice of engineering.

Requirements: IN 1240 Foundations of Materials Mechanics

Credits: 6 Level: Intermediate

Knowledge area: Solid Mechanics and Design

IN 1380 APPLIED DYNAMICS

Understanding and learning the principles necessary for the dynamic analysis of mechanical systems.

Requirements: FM 1350 Differential Equations e IN 1220 Dynamics

Credits: 6 Level: Advanced

Knowledge area: Solid Mechanics and Design

IN 1430 LINEAR PROGRAMMING

Identify, establish mathematically and solve problems with variables that are linearly related, trying to optimize an object held to restrictions.

Requirement: FM 1230 Linear Algebra

Credits: 6 Level: Intermediate

Knowledge area: Operations Investigation

IN 1440 THERMODYNAMICS

Learning, understanding and applying the principles of energy in the form of heat and work in the thermal processes reversible and irreversible, to analyze and interpret the behavior of each one of them.

Requirements: FM 1350 Differential Equations, FM 1420 Fluids and Thermodynamics
Credits: 6 Level: Intermediate Knowledge area: Thermo fluids

IN 1460 MANUFACTURING PROCESSES LABORATORY

Applying techniques of the manufacturing processes such as machining, welding and the shop operations mainly used in transformation industries and manufacturing of parts and mechanical systems, operating machines with numeric control tools as well as conventional.

Requirements: Concurrent to IN 1280 Manufacturing Processes or IN 3355 Materials and Manufacturing Planning

Credits: 3 Level: Intermediate Knowledge area: Manufacturing

IN 1510 PRODUCTION PLANNING AND CONTROL

Analyzing, designing and improving production planning systems that support the operations of the production system of a company with a competitive performance level..

Requirement: Concurrent to IN 1430 Linear Programming or IN 3400 Linear Programming Applied to Management

Credits: 6 Level: Intermediate Knowledge area: Manufacturing

IN 1560 PROJECT FEASIBILITY AND MANAGEMENT

Developing the ability to formulate or apply the methodology to elaborate and evaluate projects in their different dimensions: market, technical economical. Study and handle the techniques and methods for management and control including PERT, COM and the use of computer tools.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Operating Management

IN 1620 COMPUTER AIDED MECHANICAL DRAWING

Learning to interpret and create objects based on general drawing rules using computer tools.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Solid Mechanics and Design

IN 1840 FLUID MECHANICS

Learning and understanding the principles characteristic of static fluids and in movement to analyze and evaluate the hydraulic systems.

Requirements: FM 1350 Differential Equations and FM 1420 Fluids and Thermodynamics Credits: 6 Level: Intermediate

Knowledge area: Thermo fluids

IN 1920 DESIGN OF MACHINE ELEMENTS

Learning and understanding the fundamental principles for analysis, design and selection of mechanical elements as well as the mostly used design methodologies.

Requirements: IN 1340 Materials Mechanics

Credits: 6 Level: Advanced. Knowledge area: Solid Mechanics and Design

IN 2240 HEAT TRANSFER

Learning, understanding and applying the fundamentals of heat transmission by conduction, convection and radiation either in a stable or unstable state to analyze and evaluate their different applications.

Requirements: IN 1840 Fluid Mechanics

Credits: 6 Level: Advanced Knowledge area: Thermo fluids

IN 2390 OPERATIONS INVESTIGATION

Learning and applying the basic concepts and techniques to model and solve problems that involve discrete variables, multiple objectives, serial decisions, evolution problems of a system in time and holding phenomena and applying the basic concepts that take place in statistical simulations.

Requirements: FM 1370 Probability and Statistics, IN 1430 Linear Programming

Credits: 6 Level: Intermediate Knowledge area: Operations Investigation

IN 2430 STATISTICAL QUALITY CONTROL

Acquire and apply the knowledge necessary on statistical process control and the sampling plans to control and optimize the article and service quality.

Requirement: FM 1370 Probability and Statistics

Credits: 6 Level: Intermediate Knowledge area: Quality

IN 2490 SIMULATION

Master the methodologies for the design of system simulation models and use the model to analyze the behavior of the real system in different scenarios and decide on the best course of action.

Requirements: IN 2390 Operations Investigation, SC 1050 Programming Principles

Credits: 6 Level: Advanced

Knowledge area: Operations Investigation

IN 2590 GUIDED PROFESSIONAL PRACTICE IMA

Applying the tools acquired from the different philosophies, techniques and process design methodologies, productivity improvement and quality in a real situation.

Requirements: Having completed 252 credits

Credits: 6 Level: Advanced. Knowledge area: Industrial applications

IN 2620 FOUNDATIONS OF THE METHOD OF FINITE ELEMENTS

Acquire the basic knowledge of the method of finite elements, considering it as an engineering analysis tool.

Requirements: Having completed 216 credits o IN 1340 Materials Mechanics

Credits: 6 Level: Advanced Knowledge area:

IN 2630 GUIDED PROFESSIONAL PRACTICE IIS

Applying the tools acquired from the different philosophies, techniques and process design methodologies, productivity improvement and quality in a real situation.

Requirements: Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge area: Industrial Applications

IN 2730 FINAL EVALUATION PROGRAM IIS

Developing a project similar to the ones that will be faced in the professional life, where the knowledge acquired in the degree of industrial engineer and system has been integrated. Developing his professional responsibility, methodological capacity to search, process and utilize information, establish problems, design solutions and apply the appropriate techniques.

Requirements: IN 3435 Integral Professional Practices

Credits: 12 Level: Advanced

Knowledge area: Industrial Applications

IN 2750 FINAL EVALUATION PROGRAM IMA

Developing a project similar to the ones that will be faced in the professional life, where the knowledge acquired in the degree of mechanical engineer and administrator has been integrated. Developing his professional responsibility, methodological capacity to search, process and utilize information, establish problems, design solutions and apply the appropriate techniques.

Requirements: IN 2590 Guided Professional Practices IMA

Credits: 12 Level: Advanced

Knowledge area: Industrial Applications

IN 3200 QUALITY PHILOSOPHY

Learning the development that the term quality has had along time, acquiring the basic knowledge on the modern quality concepts, studying the theories of the main thinkers in this discipline and the ways and models used by successful enterprises in this kind of administration

Requirement: None Credits: 6 Level: Basic

Knowledge area: Quality

IN 3205 TOTAL QUALITY MANAGEMENT

Acquire and apply the knowledge on the concepts and the main tools for Total Quality Control faced with the need for change in mentality that is currently required to achieve an appropriate competitiveness from individuals and enterprises, based on quality and continuous improvement.

Requirement: FM 1180 Statistics and its Interpretation, IN 3200 Quality Philosophy o IN 1090 Quality Fundamentals

Credits: 6 Level: Basic

Knowledge area: Quality

IN 3215 QUALITY SYSTEMS

Learning and developing the group of activities that integrate the concept of quality assurance to provide the necessary evidence that establishes the degree of appropriate trust, related with compliance of the objectives and the functions assigned to quality.

Requirement: IN 3205 Total Quality Management

Credits: 6 Level: Advanced

Knowledge area: Quality

IN 3220 SELECTED QUALITY SUBJECTS

Learning and analyzing the main applications and successful practices in the quality area, from companies with high recognition due to their competitiveness.

Requirement: IN 3215 Quality Systems

Credits: 6 Level: Advanced

Knowledge area: Quality

IN 3225 DESIGN AND DYNAMIC SYSTEMS SIMULATION

Analyzing, designing and representing real situations based on simulation thinking and modeling of dynamic systems.

Requirement: Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge area: IT

IN 3250 OPERATING MANAGEMENT

Understanding the evolution and strategic importance and relevant issues of managing operations such as process design, quality improvement, cost, response time and flexibility, production planning, and work design. Defining conceptually the appropriate operating strategy to compete and satisfy the market requirements. Analyzing the trends in the area such as automation impact, information technology, just in time philosophy and similar ones.

Requirement: IN 3400 Linear Programming Applied to Management

Credits: 6 Level: Intermediate

Knowledge area: Logistics

IN 3255 LOGISTICS AND SUPPLY CHAIN

Designing logistical systems, applying tools to determine the structure of the supply chain with the minimum cost and service level to the consumer required. Understanding the relevant issues of freight management and inventory management. Improving the operating performance of his supply chain identifying the improvement areas and defining the necessary projects for this matter.

Requirements: IN 1510 Production Planning and control

o IN 3265 Supply Chain Management

Credits: 6 Level: Intermediate.

Knowledge area: Logistics

IN 3260 ADMINISTRATION OF TRANSPORTATION SYSTEMS AND MEANS

Defining based on the most relevant characteristics of the transportation means, strategies for means selection and product distribution and services that satisfy the level of service desired at a minimum cost. Learning about the current situation, advantages and disadvantages of the transportation infrastructure in Mexico and railroad, as well as the regulation referring to road transportation structure as well as the regulation regarding transportation in the Free Trade Agreement.

Requirement: IN 3255 Logistics and Supply Chain

Credits: 6 Level: Advanced Knowledge area: Logistics

IN 3265 SUPPLY CHAIN MANAGEMENT

Understanding the strategic importance and relevant functions of the Supply Chain Management. Defining strategies regarding the structure of the chain, organization, level and inventory location, transportation means and product distribution and services that support the competitive strategy of the organization, understanding the impact of chain integration and the application of information technology in its performance.

Requirements: Having completed 144 credits

Credits: 6 Level: Intermediate Knowledge area: Logistics

IN 3270 MULTILEVEL INVENTORY SYSTEMS

Designing and selecting, in terms of total cost and service level, the appropriate inventory system to a supply chain considering the centralization and decentralization scenarios in the decisions. Understanding the concept of multilevel inventory and strategies also based in multilevel. Understand the programs for joint inventory management such as VMI and similar.

Requirement: IN 3255 Logistics and Supply Chain

Credits: 6 Level: Advanced Knowledge area: Logistics

IN 3280 SEMINAR ON OPERATING MANAGEMENT

Understanding the process so that a manufacturing company may be World Class Determine the projects and programs required to achieve that goal, such as the change of organizational culture, high performance teams, changeover time reduction, flow synchronization, cell manufacturing and other similar.

Requirements: IN 3250 Operating Management

Credits: 6 Level: Advanced Knowledge area: Logistics

IN 3285 INTERNATIONAL LOGISTICS STRATEGY

Understanding the logistics impact in the International Trade. Defining strategies for logistics to improve competitiveness and/or market share in an international context, considering the impact of the cultural, political and economic issues of the nations involved. Understanding the most relevant international safety programs.

Requirements: IN 3265 Supply Chain Management

Credits: 6 Level: Intermediate Knowledge area: Logistics

IN 3290 ELECTRONIC LOGISTICS

Understanding the evolution and impact of information technology in the operation of the supply chain. Analyzing the platforms and relevant technologies to activate the logistic processes electronically. Understanding the technologies to share information in all the supply chain and support the logistics decision making.

Requirement: IN 3265 Supply Chain Management

Credits: 6 Level: Intermediate Knowledge area: Logistics

IN 3295 INTERNATIONAL LOGISTICS

Designing strategies to improve the competitiveness and market share in supply chains in a global context, incorporating the relevant social, political, cultural, and economic issues. Understanding the principles and relevant regulation for commercial exchange between Mexico, Canada and the United States.

Requirement: Concurrent to IN 3270 Multilevel Inventory Systems

Credits: 6 Level: Advanced Knowledge area: Logistics

IN 3300 METHODS ENGINEERING

Designing processes and improving their productivity applying the operations analysis, the tools for process analysis, resource groups and operator movements and the work measurement techniques. Designing incentive systems to increase productivity in operators.

Requirement: None Credits: 6 Level: Basic

Knowledge area: Operating Management

IN 3305 PLANT DESIGN

Determining the optimum location of a plant or storeroom considering the cost, environmental and social criteria. Designing and improving the physical distribution and the materials handling systems of an installation searching to reduce the cost of materials handling.

Requirement: IN 3300 Methods Engineering and concurrent to IN 1430 Linear Programming Credits: 6 Level: Basic

Knowledge area: Operating Management

IN 3310 LEAN MANUFACTURING

Defining strategies to reduce waste in organizations, identifying the value stream in them and defining the programs and projects that are required to achieve a competitive level desired. Apply fundamental programs for scrap reduction as the reduction of changeovers, creation of unitary flow, total productive maintenance and similar.

Requirement: IN 3305 Plant Design e IN 1510 Production Planning and Control.

Credits: 6 Level: Advanced Knowledge area: Operating Management

IN 3315 OPERATIONS STRATEGY

Designing operative strategies to improve the competitiveness in the organizations based in the best cost levels, quality, flexibility and response time.

Requirement: Having completed 216 credits Credits: 6 Level: Advanced

Knowledge area: Operating Management

IN 3320 MODERN ENERGY SYSTEMS

Becoming aware of the importance that energy has in our daily life in order to make a reasonable use of it and motivate the development of alternate energies.

Requirements: None Credits: 6 Level: Basic Knowledge area: Thermo fluids

IN 3330 MECHANIC-TECHNICAL DRAWING

Training the student in the basic drawing techniques, tools, instruments and interpretation of technical drawings and their development

Requirements: None Credits: 6 Level: Basic

Knowledge area: Solid Mechanics and Design

IN 3335 TECHNOLOGY EXPLORATION

Learning how to obtain a competitive advantage in products or services in order to improve them, as well as an introduction to the innovation process.

Requirements: Having completed at least 180 credits

Credits: 6 Level: Intermediate Knowledge area: Solid Mechanics

IN 3345 COMPUTER AIDED ENGINEERING ANALYSIS

Learning advanced techniques for modeling solids and structural optimization using computer tools.

Requirements: IN 2620 Foundations of the Method of Finite Elements

Credits: 6 Level: Advanced Knowledge area: Solid Mechanics and Design

IN 3350 DECISION MAKING IN PRODUCT DEVELOPMENT

Learning the key design methodologies focused to products with the purpose of optimizing the design process time as well as materials, number of parts and assembly time.

Requirements: Having completed at least 216 credits

Credits: 6 Level: Advanced

Knowledge area: Solid Mechanics and Design

IN 3355 MATERIALS AND MANUFACTURING PLANNING

Identifying and describing the fundamental principles of the manufacturing processes from raw material to description and application of modern processes in the elaboration of metallic and non-metallic products.

Requirement: None Credits: 6 Level: Basic

Knowledge area: Manufacturing

IN 3360 MANUFACTURING AUTOMATION

Understanding and applying the concepts and basic elements of automation in the modern manufacturing systems in the pneumatic areas, electro-pneumatic, programmable logic controls and robotics.

Requirement: IN 1280 Manufacturing Processes ó IN 3355 Materials and Manufacturing Planning Credits: 6 Level: Advanced

Knowledge area: Manufacturing

IN 3365 MANUFACTURING AUTOMATION LABORATORY I

Applying the knowledge acquired in pneumatics and electro-pneumatics to solve situations that require automation, simulating cases in software and lab equipment.

Requirements: IN 3360 Manufacturing Automation

Credits: 3 Level: Advanced Knowledge area: Manufacturing

IN 3370 BASIC CONCEPTS FOR AUTOMOTIVE DESIGN

Learning the concepts utilized in the design and manufacturing of vehicles considering the main aspects such as shapes, materials used, new materials, efficient use of energy, ergonomic aspect and standard compliance.

Requirements: None Credits: 6 Level: Basic

Knowledge area: Industrial Applications

IN 3375 ELECTRIC AND ELECTRONIC ENGINEERING

Learning the fundamental principles of electric and electronic engineering so that together with the learning of the standard and official regulations, it allows its application in industries, businesses, and residential.

Requirements: FM 1520 Electricity and Magnetism

Credits: 6 Level: Advanced

Knowledge area: Industrial Applications

IN 3380 SERVICE PROCESSES

Understanding the necessary fundamentals to administrate service organizations satisfying the consumer needs at a competitive level, in a global context.

Requirement: Having completed 180 credits, IN 3205 Total Quality Management o IN 2430 Statistical Quality Control

Credits: 6 Level: Intermediate

Knowledge area: Operating Management

IN 3385 NEW SERVICES DESIGN

Understanding and applying an approach for new service design according to the customer's need, incorporating communication and information technology at a competitive level.

Requirement: IN 3380 Service Processes e IN 3230 Management Systems Improvement

Credits: 6 Level: Advanced

Knowledge area: Operating Management

IN 3390 ANALYSIS OF PROJECT FEASIBILITY

Performing technical, technologic, and economic evaluations of projects in the engineering area, particularly in the company environment, using the concepts and conventional methods applied to examples and real cases including new products and/or expansion of production, risk factors, taxes and inflation.

Requirement: CO 1050 Introduction to Finance

Credits: 6 Level: Intermediate

Knowledge area: Operating Management

IN 3395 PROJECT PLANNING AND CONTROL

Mastering the methods and techniques for project planning, organization and programming and control as well as selecting the best alternatives taking into account your critical parameters (timing, costs, and resource availability) for decisions based on the advance at any stage.

Requirements: FM 1370 Probability and Statistics and concurrent to IN 1430 Linear Programming. Credits: 6 Level: Intermediate

Knowledge area: Operations Investigation

IN 3400 LINEAR PROGRAMMING APPLIED TO MANAGEMENT

Creating the appropriate model for each situation where different courses of action are present; solving with the use of the computer and analyzing and interpreting the results for efficient decision making.

Requirements: FM 1260 Differential and Integral Calculus

Credits: 6 Level: Intermediate

Knowledge area: Operations Investigation

IN 3405 PROJECT MANAGEMENT

Mastering the methods and techniques for the successful project management (description, planning, control and closing) as well as selecting the best alternatives taking into account the critical parameters and making decisions based on the advance at any stage.

Requirements: Having completed 108 credits

Credits: 6 Level: Intermediate

Knowledge area: Operations Investigation

IN 3410 THERMAL MACHINES

Applying the first and second law of thermodynamics in the calculation of parameters involved in the gas, steam, refrigeration and air conditioning and with this analyzing and evaluating these systems.

Requirements: IN 1440 Thermodynamics

Credits: 6 Level: Advanced Knowledge area: Thermo-fluids

IN 3415 MATERIALS ENGINEERING LABORATORY

Learning how to determine practically the mechanical properties of the materials based on their internal structure.

Requirements: Concurrent to IN 1260 Materials Engineering

Credits: 3 Level: Intermediate Knowledge area: Materials

IN 3420 MATERIALS MECHANICS LABORATORY

Learning how to determine practically the mechanical properties of the materials with the practice of destructive tests.

Requirements: Concurrent to IN 1340 Materials Mechanics

Credits: 3 Level: Intermediate

Knowledge area: Solid Mechanics and Design

IN 3425 COMPUTER PARAMETRIC MODELING

Developing the knowledge and ability to design objects in a parametric form and analyze their functioning.

Requirements: IN 1620 Computer Aided Mechanical Drawing

Credits: 6 Level: Intermediate Knowledge area: Solid Mechanics and Design

IN 3430 MANUFACTURING AUTOMATION LABORATORY II

Applying the knowledge acquired in programmable logic controls and robotic to solve situations that require automation simulating software cases and lab equipment

Requirements: IN 3360 Manufacturing Automation

Credits: 3 Level: Advanced Knowledge area: Manufacturing

IN 3435 INTEGRAL PROFESSIONAL PRACTICES

Applying the acquired tools regarding the different philosophies, techniques and methodologies in the areas of quality, logistics and services in a real situation

Requirements: Having completed 252 credits

Credits: 6 Level: Advanced Knowledge area: Industrial Applications

IN 3440 TEXTILE PRODUCTION PROCESSES

Acquire and apply methodological tools to analyze the engineering and manufacturing aspects of engineering and manufacturing of textile products, created by the product design function.

Requirement: DA 3240 Design Process and Management

Credits: 6 Level: Basic Knowledge area: Other degrees

IN 3445 INTERDISCIPLINARY PRACTICES

Applying the tools acquired from the different process design philosophies, techniques and methodologies, productivity and quality improvement in a real situation. Carrying out projects with students from other degrees.

Requirements: Having completed 216 credits

Credits: 6 Level: Advanced Knowledge area: Industrial Applications

IN 3450 COMPUTER TOOLING MANUFACTURING (CAM)

Acquire and apply knowledge regarding the development of shapes, function definition, behavior of the parts, for further machining in the automated centers, understanding the concept of computer manufacturing and developing cases that assist in product manufacturing.

Requirement: IN 3425 Computer Parametric Modeling e IN 3465 Die and Mold Design

Credits: 6 Level: Advanced

Knowledge area: Manufacturing

IN 3460 TOOLING, GAGE AND EQUIPMENT DESIGN

Acquire and apply knowledge regarding the definition of function, behavior and constitution, normalizations and classes, fabrication, treatment and maintenance in Tooling, Gage and Equipment Design, which assist in product elaboration.

Requirement: IN 3355 Materials and Manufacturing Planning

Credits: 6 Level: Advanced Knowledge area: Materials

IN 3465 DIE AND MOLD DESIGN

Acquire and apply knowledge regarding function definition, behavior and constitution, normalization and classes, fabrication, treatments and maintenance in tooling, gage and Equipment Design that help in product elaboration.

Requirement: IN 3355 Materials and Manufacturing Planning

Credits: 6 Level: Advanced Knowledge area: Materials

IN 3470 ELECTRICAL ENGINEERING

Applying the techniques on analysis of electrical circuits in direct current (C.D.) and alternate current (C.A.), as well as mastering the basic operating principles in transformers and electrical machines, such as motors (C.D. and C.A.) induction, synchronic, steps, and squirrel cage

Requirement: FM 1520 Electricity and Magnetism y FM 1350 Differential Equations.

Credits: 6 Level: Intermediate

Knowledge area: Electric and Electronic

IN 3475 ELECTRICAL ENGINEERING LABORATORY

Verify methods and procedures to carry out measurements of amounts such as voltage, power, resistor, capacitance and inductance as well as observing the behavior of circuits RL, RC and RLC. Internal characteristics of the transformers and efficiency simulations and regulation in monophase transformers. Blocked rotor test and vacuum test in induction motors. Curves in Par vs rpm in induction motors, rotor and squirrel cage

Requirement: IN 3470 Electrical Engineering

Credits: 3 Level: Intermediate Knowledge area: Electric and Electronic

IN 3480 ELECTRONICS I

Learning operating principles and applications of semi-conductor devices: diodes, bipolar transistors and field effect transistors; as well as introduction to modeling and simulation in computer of analogue circuits.

Requirement: IN 3470 Electrical Engineering

Credits: 6 Level: Basic Knowledge area: Electric and Electronic

IN 3485 ELECTRONICS II

Apply the basic concepts of the operational amplifiers in electronic circuits, then as the logic gates, memories, Flip-Flops and microcontrollers; using also computer simulation for the analysis of these devices.

Requirement: IN 3480 Electronics I Credits: 6 Level: Intermediate

Knowledge area: Electric and Electronic

IN 3490 ELECTRONICS LABORATORY

Learning operating principles and applications of semi-conductor devices: diodes, bipolar transistors and field effect transistors; as well as introduction to modeling and simulation in computer of analogue circuits.

Requirement: Concurrent to IN 3485 Electronics II

Credits: 3 Level: Intermediate Knowledge area: Electric and Electronic

IN 3495 DIGITAL SYSTEMS

Apply basic concepts of the Digital Systems and the design procedure of Digital Systems, combinations as well as sequential, memory devices and programmable logic, as well as developing design skills and implementation of digital systems for daily use using commercial components and computer simulation packages.

Requirement: CS 1050 Programming Principles, IN 3480 Electronics I

Credits: 6 Level: Intermediate

Knowledge area: Electric and electronic

IN 3500 DIGITAL SYSTEMS LABORATORY

Applying basic concepts of doors from different logic families, implementation of sequential logical circuits, oscillating circuits in different types and using the 555 timer, as well as the memory devices.

Requirement: IN 3495 Digital Systems

Credits: 3 Level: Basic

Knowledge area: Electric and Electronic

IN 3505 MICROPROCESSORS

Learning and applying basic concepts in Microprocessors and micro-controllers: his architecture, memory devices, input and output interfaces, the devices and language for the programming and the design procedures, required by decoration.

Requirement: IN 3495 Digital Systems

Credits: 6 Level: Basic

Knowledge area: Electric and Electronic

IN 3510 CONTROL THEORY

Learning and understanding the basic principles and applications for the design of control systems: open and closed loop, optimum, discrete, adjustable, PID; likewise, analyzing the stability of this systems applying different techniques. .

Requirement: FM 1350 Differential Equations

Credits: 6 Level: Intermediate Knowledge area: Electric and Electronic

IN 3515 AUTOMATIC CONTROL LABORATORY

Applying the basic principles for the design of control system and its application with programmable logic controllers.

Requirement: IN 3510 Control Theory

Credits: 3 Level: Intermediate

Knowledge area: Electric and Electronic

IN 3520 DESIGN OF MECHATRON SYSTEMS

Designing electromechanical systems that include sensors, microprocessors, communication and programming, with the objective of increasing productivity, quality and reliability, of productive processes in industrial, commercial or service organizations.

Requirement: Concurrent to IN 3445 Interdisciplinary Practices

Credits: 6 Level: Intermediate

Knowledge area: Electrical and Electronic

IN 3530 REHABILITATION AND BIOMECHANICS I

Learning and identifying the size and scale of the parts of the human body; understanding the environment of fluids, solids and structures, for the application of biomechanical devices as a replacement of a member of the body.

Requirement: IN 1340 Materials Mechanics, CB 2300 Anatomy I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3535 TRANSDUCERS

Learning the operation and effect of image devices, on the human body, detailing the electronic and mechanical components that make their operation and interpretation possible.

Requirement: IN3480 Electronics I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3540 MEDICAL TECHNOLOGY I

Learning the different Biomedical techniques applied to the evaluation and diagnosis of medical patients Evaluating and identifying the devices necessary to achieve an efficient performance both in hospitals as well as in ambulatory recovery.

Requirement: IN3480 Electronics I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3545 MEDICAL TECHNOLOGY II

Learning and adjusting the concepts for handling Medical Technology in the operation and service in health centers. Planning, selecting and assigning the best technology and human resources focusing the improvement of hospital quality and profitability.

Requirement: IN3480 Electronics I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3585 BIOMATERIALS AND THEIR INTERACTION N WITH THE HUMAN BODY II

Learning the biocompatibility of biomaterials used commonly in replacements of human parts. Analyzing and adjusting the biological and biochemical properties of biomaterials to be used in the skin, bones and body implants.

Requirement: IN 3525 Biomaterials and their interaction n with the human body I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3590 REHABILITATION AND BIOMECHANICS II

Learning and identifying the biomechanical applications for bodies that require constant physical movement. Defining correctly the scope and limitations that they might have.

Requirement: IN 3530 Rehabilitation and Biomechanics I

Credits: 6 Level: Intermediate

Knowledge area: Bioengineering

IN 3615 GUIDED PROFESSIONAL PRACTICES IMT

Applying the tools acquired on the different techniques and methodologies in process design, improvement of mechatronic systems in a real situation.

Requirements: Having completed 252 credits.

Credits: 6 Level: Advanced

Knowledge area: Electrical and Electronic

IN 3620 FINAL EVALUATION PROGRAM IMT

Developing a similar project than the ones that will be faced in professional life, where the knowledge acquired in the mechatronic engineer degree. Developing the professional responsibility, methodological ability to search, process and use information, establishing problems, designing solutions and applying the appropriate techniques.

Requirement: IN 3615 Guided Professional Practices IMT

Credits: 12 Level: Advanced

Knowledge area: Electrical and Electronic

IN 3625 GUIDED PROFESSIONAL PRACTICES IBI

Applying the tools acquired on the different techniques and methodologies in process design in the bioengineering area in a real situation.

Requirements: Having completed 216 credits

Credits: 6 Level: Advanced

Knowledge area: Bioengineering

IN 3630 FINAL EVALUATION PROGRAM IBI

Developing a similar project than the ones that will be faced in professional life, where the knowledge acquired in the biomedical engineer degree. Developing the professional responsibility, methodological ability to search, process and use information, establishing problems, designing solutions and applying the appropriate techniques.

Requirement: IN 3625 Guided Professional Practices IBI

Credits: 12 Level: Advanced

Knowledge area: Bioengineering

IN 3635 RADIATION AND ULTRASOUND

Learning the operations and effect of image devices on the human body, detailing and analyzing the electronic and mechanical components which make the operation possible.

Requirement: IN 3485 Electronics II, CC 1970 Radiology and Imageology

Credits: 6 Level: Intermediate Knowledge area: Bioengineering

IN 3640 MEDICAL SYSTEM ADMINISTRATION

Learning the operation and optimum handling of health centers to achieve the adjustment to the institutions of this kind under the concept of hospital of the future. Identifying the opportunity areas for improvement both in services as well as in medical technology, adjusting and applying the new trends.

Requirement: IN 3540 Medical Technology I

Credits: 6 Level: Intermediate Knowledge area: Bioengineering

IN 3650 MATERIALS AND MANUFACTURING PLANNING WORKSHOP

Applying the knowledge acquired in the application of manufacturing processes in the elaboration of metallic and non-metallic processes.

Requirement: IN 3355 Materials and Manufacturing Planning

Credits: 6 Level: Intermediate Knowledge area: Bioengineering

Department of Psychology

PS 1110 GENERAL PSYCHOLOGY

Examine psychology as a discipline that starting the use of the scientific method explains the human behavior and its different metal processes. Includes an overview of theoretical approaches, study methods and prospective.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Organizational Psychology

PS 1130 HISTORY OF PSYCHOLOGY

Analyzing the evolution and participation of the psychological discipline such as psychoanalysis, conductism, humanism and the cognitive approach and give responses from different perspectives to the interrogations on human behavior.

Requirement: PS 1110 General Psychology Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

PS 1150 LEARNING PSYCHOLOGY

Review the postulates of learning psychology regarding the processes that lead to acquire, store, recover and lose information and enable the evaluation of the learning process in the human being.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

PS 1220 SOCIAL PSYCHOLOGY

Study the behavior of the individuals in institutions and social structures and the way in which this impacts in the process of understanding the social behavior with the objective of suggesting solution strategies to the different problems states by the social psychology.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Social Psychology

PS 1230 THE PERSON IN THE ORGANIZATIONS

Strengthens the professional competition of interpersonal relations through the analysis of the psychological processes of the person that influence the development of its intra and interpersonal relations in the organizational environment.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Organizational Psychology

PS 1390 ORGANIZATIONAL PSYCHOLOGY

Promoting the development of competition of interpersonal relations with the socio-technical structures called organizations. In this sense, the course must contribute to the knowledge of essential aspects such as group processes in formal work organizations and their application to communication, leadership, participation, cooperation, team work, decision, making, conflict, environmental atmosphere, structure and organizational culture, in such a way that the student develops his emotional intelligence and analyze the psychological processes that influence in intra and interpersonal relations in organizational environments.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Organizational Psychology

PS 1410 CHILD AND TEENAGER PSYCHOLOGY

Analyzing different perspectives theoretical on the psychological development in the emotional, social, intellectual, cognitive, linguistic and moral areas of personality, from childhood to teenagers that enable the evaluation of development through observation.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

PS 1500 GROUP PSYCHOLOGY

Review the key theories, methods and techniques used in the design of programs for intervention in different psychological problems, psychological and social where it may be considered the structure, process and development of groups in educational, clinical and work environments.

Requirement: PS 1220 Social Psychology Credits: 6 Level: Basic

Knowledge Area: Social Psychology

PS 1570 PSYCHOLOGICAL INTERVIEW

Use the psychological interview technique as an evaluation instrument of the psychological processes for individuals, couples, groups, and families addressed in environments of research, educational, clinical or organizational.

Requirement: PS 1780 Evaluation Models and Methods

Credits: 6 Level: Intermediate

Knowledge Area: Social Psychology

PS 1780 EVALUATION MODELS AND METHODS

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Social Psychology

PS 2180 ADULT PSYCHOLOGY

Analyzing the theoretical approach that addresses the characteristics of psychologic development from youth until old age enabling understanding the changes that occur along the life cycle and evaluate the human resources for adjustment.

Requirement: PS 1410 Child and Teenager Psychology

Credits: 6 Level: Intermediate

Knowledge Area: Psychology of Development

PS 2190 CURRENT TOPICS ON PSYCHOLOGY

Promoting the analysis and review of the latest scientific advance in regards to human resources, organization, work, groups and work teams, satisfaction quality management, interpersonal communication and credibility, conflict, negotiation, mediation and arbitration.

Requirement: PS 3050 Evaluation of the Human Resource

Credits: 6 Level: Intermediate Knowledge Area: Organizational Psychology

PS 2230 EDUCATIONAL PSYCHOLOGY

Applying psychological principles of learning to the solution of teaching situations that imply psychological and social variables in the context of didactic interaction in the classroom, in a specific level of the educational system.

Requirement: PS 1150 Learning Psychology

Credits: 6 Level: Intermediate Knowledge Area: Psychology of Development

PS 2290 SELECTED PSYCHOLOGY TOPICS

Developing research abilities and for the acquisition of knowledge on selected topics of clinical psychology as a scientific discipline through the analysis of different investigation methods that support the clinical psychology and that have contributed to the study of personality, etiology, evaluation and treatment of psychological functions and adjustments.

Requirement: PS 3080 Personality Psychology

Credits: 6 Level: Intermediate Knowledge Area: Clinical Psychology

PS 2310 COGNITIVE PSYCHOLOGY

Applying the participations on psychological cognitive perspectives such as mechanistic and organicistic, which give the context to explanations such as the processing of the information and constructivism that promotes the development of mental processes that enable the acquisition of school knowledge in diverse areas.

Requirement: PS 2230 Educational Psychology Credits: 6 Level: Intermediate

Knowledge Area: Psychology of Development

PS 2460 GUIDED PROFESSIONAL PRACTICE LPS

Introducing into business scenarios with the objective of learning and practice the activities that a psychologist carries out within an organization as a means to facilitate contact with the labor work and serve the business community in the area.

Requirement: After eighth semester Credits: 6 Level: Advanced

Knowledge Area: Organizational Psychology

PS 2570 HUMAN BEHAVIOR AND HEALTH

Evaluating through the proposal of the different health models, the individual's resources to benefit his optimum development in the different environments where he is participating.

Requirement: PS 3090 Clinical Evaluation Credits: 6 Level: Intermediate

Knowledge Area: Clinical Psychology

PS 2610 SEMINAR ON PSYCHOLOGICAL PROJECTS

Elaborate an investigation or intervention project where the scientific method is applied and addressing current psychological phenomenon and integrate different disciplinary aspects pertinent to the problem to be researched.

Requirement: PS 3000 Approaches and Methods of Psychology Investigation

Credits: 6 Level: Advanced Knowledge Area: Social Psychology

PS 2750 PSYCHOLOGICAL THERAPIES

Intervening in clinical situations through the current psychotherapeutically approaches that promote change processes in the individuals for the development and Y or optimum achievement of their potential resources.

Requirement: PS 3085 Clinical Psychology Credits: 6 Level: Advanced

Knowledge Area: Clinical Psychology

PS 2870 BRIEF INTERVENTION TECHNIQUES

Apply the different brief intervention techniques that are offered by the psychodynamic and behavioral cognitive model, once identified in a specific manner and through an emphatic relation with the client, the need, problem or illness, in order to search the optimum development of its resources.

Requirement: PS 2750 Psychological Therapies Credits: 6 Level Advanced

Knowledge Area: Clinical Psychology

PS 2950 FINAL EVALUATION PROGRAM

Integrating the learnings of the competencies of interpersonal relationship, research, evaluation and intervention acquired along the professional degree, in the context that tests the level of responsibility, methodological ability to search, process and use of information in the establishment of problems, solutions design and application of appropriate techniques to specific situations.

Requirement: PS 2610 Seminar on Psychological Projects

Credits: 6 Level: Advanced Knowledge Area: Social Psychology

PS 3000 APPROACHES AND METHODS OF PSYCHOLOGY INVESTIGATION

Re-learning the way in which the different approaches and methods of psychology investigation orient the scientific studies in the area and determine the definition of the object for study, the conception regarding the production of knowledge and the selection of methodological procedures Requirement: None Credits: 6 Level: Basic

Knowledge Area: Social Psychology

PS 3005 DEVELOPMENT OF INTERPERSONAL SKILLS

Strengthening in the student the interpersonal communication abilities that allow them to relate in a positive manner with their clients, emphasizing a culture focused toward support, development and personal change in the framework of their interpersonal relations in different context.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Social Psychology

PS 3010 COMMUNITY PSYCHOLOGY INTERVENTIONS

Intervention in psychological and social problems in community environments through strategies for evaluation and intervention in delinquency, addiction, sexual disorders and human rights situations among others and with this, promoting the development of the resources of the individuals in the community.

Requirement: PS 1220 Social Psychology

Credits: 6 Level: Intermediate

Knowledge Area: Social Psychology

PS 3015 FAMILY PSYCHOLOGICAL COUNSELING

Handling Basic Skills of psychology counseling that benefit the development of interpersonal relationships among the integrants of the family group and based on re-learning the theoretical approach regarding the structure and interaction forms of the family, to prevent and handle, through the reference, violence, disintegration, drug addiction situations of their integrants.

Requirement: PS 3005 Development of Interpersonal Skills

Credits: 6 Level: Intermediate

Knowledge Area: Social Psychology

PS 3020 APPLIED PSYCHOLOGY TO CONFLICT SOLUTION

Developing skills to face successfully the conflicting situations that are present in different levels and contexts such as individual, couple, family, organizational and social to suggest strategies and programs with a high potential for success in the solution of conflicts. The strategies and programs suggested will facilitate the development of skills for self-management and the solution in the different conflict situations.

Requirement: PS 3005 Development of Interpersonal Skills

Credits: 6 Level: Advanced

Knowledge Area: Social Psychology

PS 3025 FUNDAMENTALS ON NEUROPSYCHOLOGY

Re-learning the structures and functioning principles of the nervous system and its influence at a physiological, emotional, and cognitive level in the psychological processes that explain human behavior.

Requirement: None

Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

PS 3030 PERSPECTIVES OF HUMAN DEVELOPMENT (B2)

Integrating a group of skills intra and interpersonal for self-knowledge and in relation with others, promoting the development of the human being through methods and psychological techniques congruent with the social and cultural environment.

Requirement: None

Credits: 6 Level: Intermediate

Knowledge Area: Psychology of Development

PS 3035 INSTRUCTION PSYCHOLOGY

Intervening in teaching situations in different areas of knowledge and educational levels that require solutions from a psychological perspective and the participation that instruction psychology can make to the formal and non-formal.

Requirement: PS 2310 Cognitive Psychology

Credits: 6 Level: Advanced

Knowledge Area: Psychology of Development

PS 3040 APPLICATIONS IN DEVELOPMENT PSYCHOLOGY (B2)

Introducing a guided activity to work in the design and development of updating programs for personnel updating, with counseling and orientation, follow-up detection and study of the psychology variation in private education institutions.

Requirement: PS 3030 Perspectives of Human Development

Credits: 6 Level: Advanced

Knowledge Area: Psychology of Development

PS 3045 GAMES THERAPY (B2)

Intervention in the solution of different problems in children and teenagers, through the different techniques used in Games therapy so the subjects may develop psychological resources that allow them to face and solve common problems in the established stages.

Requirement: PS 3040 Applications in Development Psychology

Credits: 6 Level: Advanced

Knowledge Area: Psychology of Development

PS 3050 EVALUATION OF THE HUMAN RESOURCE

Applying the theoretical-technical fundamentals in the Evaluation of the Human Resource as a key process in the organizations that is carried out through the use of techniques and instruments that orient and promote development of human potential.

Requirement: PS 1110 General Psychology

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Psychology

PS 3055 LEADERSHIP AND CHANGE PSYCHOLOGY

Proposal and execution of alternatives for action in organizational environments that commit leadership and change processes in the social and technical aspects of an organization, once the diagnosis has revealed the problem causes or opportunities for development. The alternatives for action imply promoting that the members of an organization start to plan and subsequently lead and execute, from a psychological perspective, the changes necessary to improve effectiveness and organizational performance.

Requirement: PS 2190 Current Topics on Psychology

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Psychology

PS 3060 FORMATION AND DEVELOPMENT OF WORK TEAMS

Develop Basic skills or intervention in organizations through change programs focusing in interpersonal relations and group dynamics. The change programs will represent attempts to improve the work relationship among the people, as well as to support the members of a group in evaluating their interactions and designing more effective work forms..

Requirement: PS 1110 General Psychology o AD 1361 Leadership and Organizational Change Credits: 6 Level: Advanced

Knowledge Area: Organizational Psychology

PS 3065 ORGANIZATION DIAGNOSIS

Leading organizational diagnosis processes focused to the detection of psychological and social, based on data gathering through techniques such as interviews, questionnaires, observations and measurements. Likewise, with the use of psychological diagnostic model as in the organizations including techniques for data analysis and return of diagnosis results.

Requirement: PS 1390 Organizational Psychology

Credits: 6 Level: Advanced

Knowledge Area: Organizational Psychology

PS 3070 ORGANIZATIONAL PSYCHOLOGY INTERVENTIONS

Integrating a sequence of activities, actions and events, an intervention for the development of an intervention for the development of an organization that helps in improving the execution and effectiveness in areas of organizational operation identified during the diagnosis process. Interventions may be considered from standardized programs that have been developed and used in several organizations up to programs relatively unique designed for a specified organization or department.

Requirement: PS 3065 Organization Diagnosis

Credits: 6 Level: Advanced

Knowledge Area: Organizational Psychology

PS 3075 ORGANIZATIONAL CHANGE PSYCHOLOGY

Applying psychological models in processes of Organizational Change to be carried out in industry, commerce and the service sector to seek for solutions for conflicts generated due to external variables and/or internal in the organizations

Requirement: PS 3050 Evaluation of the Human Resource

Credits: 6 Level: Advanced

Knowledge Area: Organizational Psychology

PS 3080 PERSONALITY PSYCHOLOGY

Analyzing the main explicative theories of personality, as a psychological and social phenomenon that integrates physical, emotional affective, intellectual, cognitive, moral and spiritual elements of the people being also a source of individual differences.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Clinical Psychology

PS 3085 CLINICAL PSYCHOLOGY

Review the theoretical fundamentals of the behavioral, psychodynamic and humanist paradigms from which the object of the study comes and the strategies for intervention of clinical psychology in the different modalities such as individual, couple, group and family in the educational, clinical and organizational environments.

Requirement: PS 3080 Personality Psychology

Credits: 6 Level: Basic Knowledge Area: Clinical Psychology

PS 3090 CLINICAL EVALUATION

Analyzing the theoretical foundations and measurement of the psychological evaluation that are part of different models and enable integral evaluation in the different psychological processes of an individual in clinical contexts.

Requirement: PS 3085 Clinical Psychology

Credits: 6 Level: Intermediate Knowledge Area: Clinical Psychology

PS 3095 IDENTITY AND SELF-KNOWLEDGE

Promoting the development of the intra-personal resources with which the student counts and that promote understanding of self and development in the physical, emotional, affective, intellectual, cognitive, moral and spiritual understanding of its person.

Requirement: None Credits: 6 Level: Basic

Knowledge Area: Clinical Psychology

PS 3100 PSYCHOLOGICAL COUNSELING (B2)

Counseling in clinical situations as a means for psychological intervention that supports individuals to consider different alternatives for solutions for an appropriate direction of themselves and their environment.

Requirement: None Credits: 6 Level: Advanced

Knowledge Area: Clinical Psychology

PS 3105 CLINICAL PSYCHOLOGY APPLICATIONS (B2)

Introducing into a guided experience to work in the design and development of programs for updating personnel, counseling and orientation, follow-up, detection and study of psychological variables in private clinical institutions.

Requirement: PS 3100 Psychological Counseling

Credits: 6 Level: Advanced

Knowledge Area: Clinical Psychology

PS 3110 THE PSYCHOLOGIST, IDENTITY AND CHANGE

Relearning the need for a scientific education and a critical and reflexive attitude in the professional role of psychologist, that guides his commitment with work in the different contexts and with the place occupied as instrument of change to promote the development of human beings.

Requirement: PS 3095 Identity and Self-knowledge

Credits: 6 Level: Advanced Knowledge Area: Clinical Psychology

PS 3115 CLINICAL CHILD PSYCHOLOGY (B2)

Applying different theoretical approaches that participate with knowledge regarding the children development as the basis for prevention and solution of behavioral dysfunction neuropsychological and emotional that impact their development.

Requirement: PS 3105 Clinical Psychology Applications

Credits: 6 Level: Advanced

Knowledge Area: Clinical Psychology

PS 3120 PSYCHO-BIOLOGY

Reviewing the participations of the biologic approach in of behavior, regarding the relationship between behavior and the components of the nervous system, neuronal conduction and synapses transmission, as well as the functions of the sensorimotor system, neuronal plasticity and brain lateralization. Analyzing subjects such as ingestion, sex, sleep and drug addiction as a way to reflect in the application of psychobiology.

Requirement: None

Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

PS 3125 COGNITIVE PROCESSING

Applying the basic aspects of the human factors I the design of human and technological systems.

Requirement: None

Credits: 6 Level: Basic

Knowledge Area: Psychology of Development

Department of Computer Sciences

SC 1000 CRITICAL EVALUATION OF INFORMATION DATABASES

Acquire competencies to find, evaluate, organize, synthesize and exploit information from proprietary electronic databases and in the WEB using computer technology (search and selection of investigation subjects, technology and procedures to elaborate the documents for investigation, ethics in the electronic media, interpretation of different types of information).

Requirements: None

Credits: 6 Level: Basic

Knowledge Area: Computer tools

SC 1010 LOGIC-ANALYTICAL REASONING

Developing analysis abilities, problem solution and logical reasoning Design algorithms to design algorithm for problem solution, (problem classification, methods for problem resolution automatic problem resolution, tools for problem solution)

Requirements: None Credits: 6 Level: Basic

Knowledge Area: Computer tools

SC 1030 INTERFACE DESIGN

Apply the theories of effective interaction man-machine for the design and development of graphical interfaces and their associated information. Learning to use techniques for its evaluation. Analyzing study cases emphasizing in usability.

Requirements: SC1050 Programming Principles o SC1010 Logic-Analytical Reasoning

Credits: 6 Level: Basic

Knowledge Area: Interaction Man Machine

SC 1050 PROGRAMMING PRINCIPLES

Analyzing and identifying the way in which a problem may be solved through a computer. Define the specs and design the solution through algorithms, flow diagram and pseudo code. Use a programming language focusing objects for its implementation (methodology, bylaws, expressions declaration, input and outputs).

Requirements: None

Credits: 6 Level: Basic

Knowledge Area: Software Development

SC 1070 INFORMATION SYSTEMS FOR EDUCATION

Exploit different electronic databases in an Educational Institution to support the educational process, as well as its utilization in academic decision making, learning strategies and vocational orientation.

Requirements: SC1000 Critical Evaluation of Information Databases

Credits: 6 Level: Intermediate

Knowledge Area: Databases

SC 1120 INFORMATION TECHNOLOGY FOR TOURISM SERVICES

Study technology for the tourist services, evaluating feasibility, advantages and disadvantages with the objective of improving , as well as the introduction to the technology exploration process.

Requirements: Having completed 180 credits

Credits: 6 Level: Intermediate

Knowledge Area: Organizational environment

SC 1140 CREATION AND ADMINISTRATION OF BUSINESS DATABASES

Explaining different electronic databases in an organization to determine the markets where it is competitive as well as for its use in executive decisions, strategies for Advertising and Marketing, basis for differentiation, forecasts for opportunities for growth, retention and maximization of the current clients and gathering new ones.

Requirements: SC1000 Critical Evaluation of Information Databases

Credits: 6 Level: Basic

Knowledge Area: Databases

SC 1160 HEALTH INFORMATION SYSTEMS

Learning, evaluating, selecting and using the different kinds of Information Systems for health institution administration as well as their technologies and the relation existing between operation of the systems and the Institution. Understanding the value of information and the strategic role of information systems for health in achieving the institutional goals and decision making, preparing the student to an interaction with this kind of systems.

Requirements: Having completed 180 credits.

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1180 HOSPITAL AUTOMATION

Studying technologies for the automation of medical assistance processes in health institutions analyzing their feasibility, advantages, disadvantages, considering efficiency, impact and treatment doctor-patient.

Requirements: Having completed 180 credits Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1200 INTERMEDIATE PROGRAMMING

Understanding and applying the concepts related to philosophy and design principles of the programming focusing objects, (composition, polymorphism, heritage, encapsulation, abstraction) Using programming tools focusing objects in development in applications, simple data structure, kinds of abstract data, data validation).

Requirements: SC1050 Programming Principles

Credits: 6 Level: Basic

Knowledge Area: Software Development

SC 1250 DATA STRUCTURE

Understanding and applying algorithms and techniques to represent and organize information within a computer system as well as classify, order and find efficiently (memory Statics and Dynamics,)pointers and classes, spread matrixes, ordering algorithms and search heaps, graphos).

Requirements: Having completed 72 credits

Credits: 6 Level: Basic

Knowledge Area: Databases

SC 1280 INFORMATION TECHNOLOGY MANAGEMENT

Learning to plan, organize, lead, evaluate and control correctly the informatics resources of an organization. Learning the concepts of auditing once and strategic role of IT, leadership and responsibilities of CIO, planning IT. Managing IT, leadership and responsibilities.

Requirements: AD1211 Administrative Foundations

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1290 E-COMMERCE

Associate functions of IT in the E-commerce environment and business to solve obstacles and achieve digital transformation of processes. Understanding and applying the IT functions in the environment and remove obstacles and achieve digital transformation of processes. Understanding and applying technology issues and apply technology, legal, economic, social and cultural in the integration of organizations.

Requirements: SC1000 Critical Evaluation of Information Databases

Credits: 6 Level: Intermediate Knowledge Area: Organizational Environment

SC 1300 FOUNDATIONS ON SOFTWARE DEVELOPMENT

Learning, Understanding and applying methodologies, techniques and tools, traditional for the Software Development. Develop competencies in analysis and design of quality software using a formal methodology.

Requirements: Having completed 72 credits. Credits: 6 Level: Intermediate

Knowledge Area: Software Development

SC 1320 PROCESS REDESIGN SUPPORTED IN IT

Learning and understanding the importance of design and compliance with quality in processes in the business to achieve the objectives in an organization. Learning methodologies to diagnose, model and redesign processes from the mental maps of the organization and incorporate IT in the improvement.

Requirements: AD1211 Administrative Foundations

Credits: 6 Level: Basic

SC 1330 ALGORITMIA

Designing algorithms to solve problems with algorithms, select particular algorithms for each purpose, apply, analyze its advantages and limitations and identify when there is one algorithm, and identify en which case there is no algorithm. Analysis, strategies: brute force, greedy, backtracking, branch and bound, heuristics, pattern matching and string text, num.

Requirements: SC1200 Intermediate Programming

Credits: 6 Level: Basic Knowledge Area: Software Development

SC 1340 SOFTWARE DEVELOPMENT FOCUSED TO OBJECTS

Understanding and apply techniques and methodologies for design and Software Development focused to objects. Use modeling tools such as UML to illustrate analysis and design (software tests, metrics, reuse and ease).

Requirements: SC1200 Intermediate Programming Credits: 6 Level: Intermediate

Knowledge Area: Software Development

SC 1380 IT PLANNING

Understanding and Applying methodologies, techniques and tools in order to carry out the planning, prospective and strategic, for IT and integration of the organization processes.

Requirements: SC1280 Information Technology Management

Credits: 6 Level: Advanced Knowledge Area: Organizational Environment

SC 1390 DECISION MAKING SUPPORT SYSTEMS

Learning to identify the main elements inside and outside a business unit and use advanced tools for model and identifying the main elements for information in a business unit, and use advanced tools for modeling and exploitation of this information to support strategic decisions in the organization).

Requirements: SC1510 Introduction to Data Base Systems

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Development

SC 1400 COMPUTER CHARTS

Understanding y Apply the theory of analysis and design of graphical systems in order to analyze, design and construct a computer system that uses computer tools. Understanding how algorithms work and design new algorithms, Produce an animation using specialized software with figures and animation).

Requirements: SC1250 Data Structure, FM1390 Advanced Calculus

Credits: 6 Level: Advanced

Knowledge Area: Interaction Man Machine

SC 1410 ADVANCED PROGRAMMING

Master and apply the main principles for design using programming language oriented to objects to learn concepts such as flat files and databases, design fundamentals (usability, BUI, applets, events, listeners, archive. Validation, connection to databases (JDBC), exception handling , template.

Requirements: SC1200 Intermediate Programming

Credits: 6 Level: Intermediate

Knowledge Area: Interaction Man Machine

SC 1420 COMPUTER ORGANIZATION

Understanding the design of the configuration of a computer system and the form it interacts with components basic operation (logical circuits. Main components for a computer, (Von Neuman) memory devices for input and output. Fetch cycles and execute, operating codes, direction mode, machine instructions...

Requirements: FM1190 Computer Mathematics

Credits: 6 Level: Basic Knowledge Area: Operative Environment

SC 1430 HARDWARE LABORATORY

Experiments related with logical microprocessors for programming, (internal flow of data, instructions, peripherals, interrupter, microcontrollers, internal data flow in Microprocessors, practical applications).

Requirements: Simultaneous con SC1610 Computer Architecture or having completed prior.

Credits: 3 Level: Basic

Knowledge Area: Hardware and Telecommunications

SC 1450 DEVELOPMENT OF PORTABLE SOFTWARE

Learning a language that allows using interruptions, technical for direction and elemental operations using these knowledge, storing information and communicating Understanding the concept of omnipresent portable devices.

Requirements: SC1200 Intermediate Programming, SC1420 Computer Organization
Credits: 6 Level: Intermediate Knowledge Area: Software Development

SC 1470 INTELLIGENT SYSTEMS

Learning the main concepts of artificial intelligence that allow a computer to see, understand, read, learn and think. Apply these knowledge in problem solutions for design of intelligent software).

Requirements: SC1250 Data Structure, FM1140 Mathematical Logic
Credits: 6 Level: Advanced Knowledge Area: Interaction Man-Machine

SC 1480 IT PROJECTS IMPLEMENTATION

Understanding the implementation process for IT projects, managing the variables of time, cost, and quality as well as other central indicators in strategic planning for each project individually. (planning, organization, implementation and project control, communication, follow up for tasks, quality assurance, change control , administration o configuration).

Requirements: SC1380 IT Planning
Credits: 6 Level: Advanced Knowledge Area: Organizational Environment

SC 1490 SOFTWARE DEVELOPMENT TECHNOLOGY AND METHODOLOGY

Carry out prospective analysis and technology exploration to master and compare different methodologies for software development and learn to decide in which case to apply them. Learn the ages of the process of development considering the methodology and ensuring quality. (RAD, spiral, agile, extreme, re-engineering, inverse engineering).

Requirements: SC1300 Foundations on Software Development
Credits: 6 Level: Advanced Knowledge Area: Software Development

SC 1510 INTRODUCTION TO DATA BASE SYSTEMS

Learning the importance and role of Databases in organization. Understanding the logical structures and Databases models applying in the solution o f real cases and using database handlers. Learning and applying efficient techniques.

Requirements: SC1250 Data Structure, FM1140 Mathematical Logic
Credits: 6 Level: Intermediate Knowledge Area: Databases

SC 1540 SOFTWARE DEVELOPMENT BASED ON COMPONENTS

Examine inherent concepts of architecture for software and some multilayer models based in components and patterns, applying analysis techniques and software design, relations between the levels of abstraction, scalability, performance, modularity, DLL's, WEB services, Java servlets).

Requirements: SC1300 Foundations on Software Development, SC1510 Introduction to Data Base Systems
Credits: 6 Level: Intermediate Knowledge Area: Software Development

SC 1550 OPERATING SYSTEMS

Learning the fundamentals of software design that manages the resources of a computer system. Its importance and transcendence administering the resources of a computer software. Analyzing the way in which it manages resources of a computer system. Examine the techniques used to manage the processor, memory for the computer, peripherals and file systems (scheduling, security and privacy).

Requirements: SC1250 Data Structure, SC1420 Computer Organization Credits: 6

Level: Intermediate

Knowledge Area: Operative Environment

SC 1580 IT SECURITY AND AUDITS

Understanding the methodologies for auditing in IT applied in an organization as well as different tools that exist, their role in the IT area as well as different tools that exist (Auditing, ethical aspects and social).

Requirements: SC1380 IT Planning

Credits: 6 Level: Advanced

Knowledge Area: Organizational Environment

SC 1600 DEVELOPMENT OF WEB APPLICATIONS

Understanding and applying a methodology for development of applications for WEB Using different tools and languages to design and create a WEB application. Using different tools and languages to design and create a site.

Requirements: SC1540 Software Development based on Components

Credits: 6 Level: Advanced

Knowledge Area: Hardware and Telecommunications

SC 1610 COMPUTER ARCHITECTURE

Analyzing the elements that take part in the design of computers emphasizing performance factors cost and relation with software. Learning architectures in hardware and groups of instructions, examples with real design. Study models of high performing processors.

Requirements: SC1420 Computer Organization, Simultaneous con SC1430 Hardware Laboratory o having completed SC1430 Hardware Laboratory.

Credits: 6 Level: Intermediate

Knowledge Area: Hardware and Telecommunications

SC 1700 TRANSLATORS DESIGN

Understanding the basic concepts of translators theory. Learning the analysis of vocabulary, syntax and semantics. Understanding the different representations for the codes and implications in the execution. Design and implement a compiler in the limited version of a computer language..

Requirements: SC1550 Operating Systems Credits: 6 Level: Advanced

Knowledge Area: Operative Environment

SC 1810 COLLABORATION SYSTEMS AND WORK FLOW

Design and build systems based on computers to support a group of people in the organization who work in a common task providing an interface for a shared environment (groupware, workflow, collaborative learning).

Requirements: SC1320 Process redesign.

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1830 INFORMATION SYSTEMS FOR ADMINISTRATION

Learning the different types of Information systems for administration, as well as its technologies and the relationship existing between the function of the systems and the company. Understand the strategic role of Information systems for administration. Understand the strategic role of Information systems for Administration in achieving organizational, goals.

Requirements: Having completed 180 credits Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1850 INFORMATION SYSTEMS FOR MANUFACTURING

Learning how information systems may support management of production, understand the production process stages and the planning and control techniques that may be supported by current technology.

Requirements: IN1510 Production Planning and Control

Credits: 6 Level: Intermediate

Knowledge Area: Organizational Environment

SC 1870 KNOWLEDGE MANAGEMENT

Understanding the function of the Knowledge systems in society and establish a strategy for the organizations as well as the techniques, tools and fundamental processes that allow creating the basis for information and knowledge.

Requirements: PS1390 Organizational Psychology, SC1510 Introduction to Data Base Systems. Credits: 6 Level: Intermediate

Knowledge Area: Databases

SC 1910 VIRTUAL WORLDS

Understanding the techniques, experiences and implications of development of virtual environments. Learning state of the art technology for its creation. Students will be able to create interactive virtual atmospheres.

Requirements: SC1200 Intermediate Programming.

Credits: 6 Level: Intermediate

Knowledge Area: Interaction man machine

SC 1920 SPECIAL EFFECTS IN COMPUTER

Learning and using techniques to create special effects, integration of text, graphs, sound and video, animation and alteration of previous elements with a development software..

Requirements: DA3505 Multimedia Credits: 6 Level: Intermediate.

Knowledge Area: Interaction man machine

SC 1930 SENSORIAL TECHNOLOGY

Understanding the basic concepts related to computer perception. Study the existing methods and techniques. Learning the algorithms mostly used in the area of computer perception and apply with examples.

Requirements: SC1470 Intelligent Systems

Credits: 6 Level: Intermediate

Knowledge Area: Interaction man machine

SC 2030 IMAGE PROCESSING

Learning the theoretical and practical basis for representation, transformation, analysis, storage and compression of digital images, emphasizing the main operations.

Requirements: SC1470 Intelligent Systems

Credits: 6 Level: Intermediate

Knowledge Area: Interaction man machine

SC 2050 COMPUTER AIDED INTELLIGENT INSTRUCTION

Apply principles and methodologies for software in the development of computer programs with interface man-computer in high quality that are able to monitor performance of the student and modify internal factors and external of the program to be adjusted according to the student's need.

Requirements: PS1150 Learning Psychology

Credits: 6 Level: Intermediate

Knowledge Area: Interaction man machine

SC 2170 DATABASES

Understanding and applying the database design concepts using the hierarchical model and the network. Learning the principles of the databases oriented to objects and relational design including normalization based on functional dependency.

Requirements: SC1510 Introduction to Data Base Systems

Credits: 6 Level: Intermediate

Knowledge Area: Databases

SC 2220 MULTIDIMENSIONAL DATABASES

Learning methodologies to integrate Databases and design and build information storages with corporate information such as Data Warehouse and Data Mart..

Requirements: SC1510 Introduction to Data Base Systems

Credits: 6 Level: Advanced

Knowledge Area: Databases

SC 2230 ADVANCED DATABASES

Understanding and practicing selected subjects in Databases such as: distributed, for Web, oriented to objects, for music, heterogeneous; concurring, security, integrity, / hypermedia and techniques for processing transactions in distributed databases.

Requirements: SC1510 Introduction to Data Base Systems

Credits: 6 Level: Advanced Knowledge Area: Databases

SC 2290 TELECOMMUNICATIONS

Learning the elements and characteristics that form a communication system for data. Analyzing the most common models: ISO/OSI and TCP/IP. Learning standards and basic protocols for data transmission.

Requirements: SC1420 Computer Organization ó IN3495 Digital Systems

Credits: 6 Level: Intermediate Knowledge Area: Hardware y Telecommunications

SC 2320 GUIDED PROFESSIONAL PRACTICE LTI

Master and practice the concepts, methodologies, skills and abilities learned in the academic program through the development of a project that involves a planning, redesign of the processes, acquisition implementation and operation. Includes the design of sales strategy and commercialization of a product for IT:.

Requirements: SC1300 Foundations on Software Development, IN1560 Project Feasibility and Management Credits: 6 Level: Advanced

Knowledge Area: Technology Information

SC 2360 DISTRIBUTED VIRTUAL BUSINESSES

Design architectures in IT that allow the organizations to generate collaborative trade through different interfaces of virtual channels and communication with your communication (commerce, net-marketplaces, salesperson{s channels (sell side), channels for the writer.

Requirements: SC1810 Collaboration Systems and Work Flow

Credits: 6 Level: Intermediate Knowledge Area: Organizational Environment

SC 2370 SOFTWARE ENGINEERING

Learning, Understanding and practicing methodologies necessary to administer the software development for its large scale production and its phases: requirement, design, construction, tests and comprehension Study some issues regarding software development such as quality planning and estimates and configuration.

Requirements: SC1300 Foundations on Software Development

Credits: 6 Level: Intermediate Knowledge Area: Software Development

SC 2380 NETWORK LABORATORY

Carry out experiments related with the installation and configuration of devices to transmit digital signals, and measure their efficiency.

Requirements: Simultaneous con SC2390 Network Design o having completed prior

Credits: 3 Level: Intermediate Knowledge Area: Hardware y Telecommunications

SC 2390 NETWORK DESIGN

Learning and understanding the principles of Network Design, advantages, applications. Study the different protocols at a high level. Study the different protocols, designing the principles of Network design, its advantages and applications. Study the different protocols in a high).

Requirements: SC2290 Telecommunications, and Simultaneous con SC2380 Network Laboratory o having completed before.

Credits: 6 Level: Intermediate Knowledge Area: Hardware y Telecommunications.

SC 2400 GUIDED PROFESSIONAL PRACTICE ISC

Master and put into practice the concepts, methodologies, skills and capacities having learned in the academic program, through the administration and the development of a project in software, high quality applied to serve with methodologies, skills, capacities learned in the beginning. Requirements: SC1300 Foundations on Software Development, SC1340 Software Development Focused to Objects. Credits: 6 Level: Advanced
Knowledge Area: Technology Integration

SC 2440 SOFTWARE QUALITY

Learning and understanding the process and need to ensure the Software quality and its production in large scale as well as the determining factor Plan and understand the need to ensure the Software Quality and its production is at great scale.). Requirements: SC2370 Software Engineering Credits: 6 Level: Intermediate.
Knowledge Area: Software Development

SC 2450 OPERATING SYSTEMS APPLICATIONS

Learning the principles for design of the administrators, learning the design system for the administrators that are scattered. Learning and applying the operating systems as the principles of design most communicated. Requirements: SC1550 Operating Systems
Credits: 6 Level: Intermediate Knowledge Area: Operative Environment

SC 2460 SOFTWARE EVOLUTION

Understanding and Applying, design techniques for software tests as well as tracking, monitoring, evaluation technique to guarantee its quality and no defect production. Anticipating diversity and reduction of complexity in software. Structure for validation and use of external standards). Requirements: SC1300 Foundations on Software Development
Credits: 6 Level: Intermediate Knowledge Area: Software Development

SC 2500 GUIDED PROFESSIONAL PRACTICE ISI

Master and practice the concepts, methodologies, skills and abilities learned in the academic program by means of analysis, modeling and processing information using computer tools. Requirements: SC1300 Foundations on Software Development, SC1510 Introduction to Data Base Systems
Credits: 6 Level: Advanced. Knowledge Area: Technology integration

SC 2600 GUIDED PROFESSIONAL PRACTICE IDGD

Master and practice the concepts, methodologies, skills and abilities learned in the academic program through development of a real project involving design, development, implementation and evaluation of interactive computer technology and using reality of people and organizations. Requirements: SC1300 Foundations on Software Development, DA3510 Electronic Animation Credits: 6 Level: Advanced
Knowledge Area: Technology Integration

SC 2620 SOFTWARE CONSTRUCTION AND PERFECTING

Learning and applying principles, methods and techniques to perfect and refine the software code and improve its performance in the use of resources and his performance. Diagnosis of existing limitations and determine pertinence of reexamining the conceptual design. Reduction of complexity, anticipation to diversity..

Requirements: SC1250 Data Structure Credits: 6 Level: Intermediate

Knowledge Area: Software Development

SC 2630 BIDDING AND IMPLEMENTATION OF INFORMATION TECHNOLOGY

Understanding and applying methodologies for selection, acquiring and installing technology and implement its friendly transition , being able to achieve harmony with the client and evaluating indicators of success in the projects..

Requirements: SC1300 Foundations on Software Development, SC2290 Telecommunications. Credits: 6 Level: Advanced

Knowledge Area: Technology Integration

SC 2790 DISTRIBUTED SYSTEMS

Learning and applying concepts forming a distributed system as well as its correct evaluation for efficiency. (Algorithms distributed, architectures, configurations, IPX protocol, failure and recovery, model and evaluation

Requirements: SC2290 Telecommunications Credits: 6 Level: Advanced

Knowledge Area: Hardware y Telecommunications

SC 2830 FINAL EVALUATION PROGRAM ISC

Develop a computer system project that can be representative of the knowledge, abilities and skills and capacities acquired during the academic program. Implement a project that meets the needs of the real client.

Requirements: SC2400 Guided Professional Practice de ISC

Credits: 12 Level: Advanced Knowledge Area: Technological Integration

SC 2840 FINAL EVALUATION PROGRAM LTI

Develop an IT project that will be representative of the knowledge, skills and abilities acquired during the academic degree. Implement a project in the same way as it would be found in real life .

Requirements: SC2320 Guided Professional Practice de LTI

Credits: 12 Level: Advanced. Knowledge Area: Technology Integrated

SC 2850 FINAL EVALUATION PROGRAM ISI

Develop an IT project that will be representative of the knowledge, skills and abilities acquired during the academic degree. Implement a project in the same way as it would be found in real life considering covering the requires for the real client Requirements: SC2500 Guided Professional Practice de ISI

Credits: 12 Level: Advanced Knowledge Area: Technology Integrated

SC 2860 FINAL EVALUATION PROGRAM IDGD

Develop a project for Interactive Technology that will be representative of the knowledge, skills, acquired during the academic program. Implement the project so it may meet the needs of a real client.

Requirements: SC2600 Guided Professional Practice de IDGD

Credits: 12 Level: Advanced Knowledge Area: Technology integration