INFORMATICS II

1. Competences	To manage products and services marketing process from the market diagnosis, selling strategies and administrative tools, in order to meet client's needs, to contribute to the national and international competitiveness and positioning of the corporation.
1. Term	Second
2. Theoretical hours	13
3. Practical hours	47
4. Total hours	60
5. Weekly hours	4
6. Objective	Students will organize information through the use of worksheet software and the management of data base to optimize corporation's processes.

Learning Unit	Hours		
	Theoretical	Practical	Total
I. Worksheet	7	28	35
II. Database	6	19	25
Total	**13**	**47**	**60**

INFORMATICS II
Learning Units

1. Learning Unit	I. Worksheet
2. Theoretical Hours	7
3. Practical Hours	28
4. Total	35
5. Objective	Students will develop worksheets to expedite information management in their professional field.

Topic	Knowledge	Skills	Values/ Behavior
Introduction to worksheets	To Identify basic tools that constitute worksheets working environment: - Books - Sheet - Cells - Toolbar To identify components allowing to format cells, sheets and books: - Borders and shadings - Alignment - Combine cells - Size - Orientation To identify basic tools for printing configuration in worksheets.	To elaborate worksheets using worksheets setting tools. To format worksheets.	Systematic Analytical Organized Responsible Tidy Ability to plan

Topic	Knowledge	Skills	Values/ Behavior
Formulae and functions	To define relative, absolute and mixed cells references. To define the types of operators and their origin. To identify tools to create formulae and use of functions. To describe data validation and criteria configuration. To explain formulae structural composition in worksheets. To explain structural composition of functions: - Mathematics - Text - Date and time - Statistics - Rational search	To carry out calculations with formulae and functions, referencing cells: absolute, relative and mixed.	Systematic Analytical Organized Responsible Tidy Ability to plan

Topic	Knowledge	Skills	Values/ Behavior
Filters, searching and sorting	To identify auto-filters configuration. To identify advanced filters components. To explain searching components. To identify types of sorting: - ascendant - descendent - personalized	To organize commercial and service area information, applying filters, searching and sorting tools in a worksheet.	Systematic Analytical Organized Responsible Tidy Ability to plan
Dynamic tables and hyperlinks	To identify the concept of hyperlink and its types. To explain the concept of dynamic table and its components. To describe dynamic tables creation procedure and their field's configuration.	To generate specific information matrixes from data contained in worksheets. To use hyperlinks in presentations.	Systematic Analytical Organized Responsible Tidy Ability to plan
Graphics types	To identify graphics types and their parts. To identify the tools in graphics and images creation, insertion and edition. To identify histograms application.	To create graphics using worksheets tools from data management and strategic information. To elaborate histogram's considering statistical data.	Systematic Analytical Organized Responsible Tidy Ability to plan

Topic	Knowledge	Skills	Values/ Behavior
Statistic functions	To describe the process for data analysis tool complement installation To identify the importance of statistics data use.	To prepare information contained in worksheets.	Systematic Analytical Organized Responsible Tidy Ability to plan

Learning Outcome	Learning Process	Assessment Instruments
From a laboratory practice related to commercial sector, to deliver a worksheet book in digital form, including the following information: - Inventories data base - Movements recording - Inventory consultation - Comparative tables - Statistical data - Graphics	1. To identify worksheet basic tools. 2. To understand the use of worksheets formulae and functions. 3. To understand the procedure to create dynamic tables and hyperlinks. 4. To identify tools to elaborate graphics and data analysis. 5. To elaborate worksheets.	Practical exercises Checklist

INFORMATICS II

TEACHING-LEARNING PROCESS

Teaching Methodologies	Teaching Materials
Learning assisted by information technologies Laboratory practice Problems solving	Computer Projector Board Printed and digital material Internet Worksheet

TRAINING FACILITIES

Classroom	Languages Lab/Workshop	Corporation
X		

INFORMATICS II
Learning Units

1. Learning Unit	II. Database
2. Theoretical Hours	6
3. Practical Hours	19
4. Total	25
5. Objective	Students will create databases to expedite corporation information organization.

Topic	Knowledge	Skills	Values/ Behavior
Database components	To identify databases components: - Field, records, table - Types of databases: master and in motion - Database models according to the content	To determine databases models from corporation's information needs.	Systematic Analytical Organized Responsible Tidy Ability to plan
Table creation and design tools	To identify table creation and design tools: - Create fields and tables - Define field ID - Insert or delete records - Define criteria for sorting/ consultation (sorting by one, two and three criteria)	To create databases.	Systematic Analytical Organized Responsible Tidy Ability to plan

Topic	Knowledge	Skills	Values/ Behavior
Design of data interfaces	To identify tools to design: - Forms/formats (Data capture) - Report/briefings (Data reading)	To program format objects. To generate briefings from data capture.	Systematic Analytical Organized Responsible Tidy Ability to plan
Macros	To identify procedure to elaborate automatized macros. To identify macros design tools.	To insert macros to automatize repetitive tasks.	Systematic Analytical Organized Responsible Tidy Ability to plan

Learning Outcome	Learning Process	Assessment Instruments
To develop a Project for commercial or service application containing the following specifications: - Tables with statistical and dynamic data with five fields - Information capture formats - Database consultations - Elaboration of briefing/report formats - Macros for repetitive tasks.	1. To understand databases components. 2. To understand tools to create tables and interfaces design. 3. To identify procedure to create modules. 4. To identify design tools for automatized macros design. 5. To create databases.	Project Rubric

ELABORÓ:	Comité de Directores de la Carrera de TSU en Desarrollo de Negocios área Mercadotecnia	**REVISÓ:**	Dirección Académica	
APROBÓ:	C. G. U. T. y P.	**FECHA DE ENTRADA EN VIGOR:**	Septiembre de 2017	

INFORMATICS II

TEACHING-LEARNING PROCESS

Teaching Methodologies	Teaching Materials
Learning assisted by information technologies Laboratory practice Learning based on projects	Computer Projector Board Printed an digital material Internet Software for database management

TRAINING FACILITIES

Classroom	Languages Lab/Workshop	Corporation
X		

ELABORÓ:	Comité de Directores de la Carrera de TSU en Desarrollo de Negocios área Mercadotecnia	REVISÓ:	Dirección Académica	
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INFORMATICS II
ABILITIES DERIVED FROM PROFESSIONAL COMPETENCIES TO WHICH THE SUBJECT CONTRIBUTES

Ability	Performance Criteria

To diagnose the corporation's condition through the use of financial, administrative and researching tools, as well as to analyze functional areas in order to plan the commercialization process.	Students elaborate a corporation diagnosis including:
	- organizational philosophy
	- organizational objectives
	- financial analysis:
	  - Vertical method
	    - Financial reasons
	    - Integral percentages
	    - Critical point
	  - Horizontal method
	    - Tendencies
	    - Percentage change
	- Installed capacity
	- Positioning in the market
	- Product analysis
	- Distribution channels
	- Competitiveness of sales force
	- Client portfolio behavior
	- Public perception
	- Identification of strengths and weaknesses.

| To determine competition positioning through the study of its competitive advantages, weaknesses, use of methods and techniques, in order to identify the corporation's opportunities in the market. | Students deliver the competition analysis including:
- participation in the market
- positioning in the market
- Competitive and comparative advantages matrix:
  - Price
  - Product quality
  - Service quality
  - Distribution channels
  - Delivery time
  - Advertising
  - Payment terms
  - After-sales service
- Analysis and interpretation of results
- Opportunity identification. |

Ability	Performance Criteria
To perform national and international market research through an analysis of environment and the use of quantitative and qualitative methods, for commercial decision making.	Students present a report of markets research including: - Executive overview - Research statement (problem, objective, hypothesis, research methodology, technical proposal, instrument for information gathering) - Data gathering and management - Results analysis and interpretation - Conclusions and recommendations.

To formulate national and international business ideas through business projects methodology, in order to harness detected opportunities	Students present a draft at a profile level containing:
	Executive overview
	Definition of goods or service
	Market analysis
	Technical analysis:
	  - Organizational
	  - Legal
	  - Production
	  - Environmental impact
	Financial analysis
	Pre-feasibility analysis
	Conclusions

To elaborate sales programs based on sales projections and through resources analysis and strategies design, to achieve commercial goals.	Students elaborate a sales program containing: - projection - objectives - goals - strategies - budgets - activities timetable
To organize sales forces through the assignment of functions, sales methods and administrative techniques, to achieve commercial goals.	Students present a proposal for sales department structure including: - Organization Structure in Sales Area - Profiles and Position Description - Salespeople Selection - Training Plan - Incentive Plan

Ability	Performance Criteria
To supervise commercial processes by control tools and performance indicators to establish improvement actions and contribute to the corporation's profitability. .	Students prepare a report including: - Type of Supervision - Control Instruments - Indicators measurement in sales area - Client satisfaction evaluation - Sales force performance evaluation - Improvements proposal

INFORMATICS II
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