# 7.1. Plan of Study: Diploma in Interior Architecture Engineering

Year I		
Fall Semester		18 Credits
Code	Course Title	Credit Hours
INTA 130	Architectural Drawing I	3
ENGL 101	Basic Academic English I	3
GRDS 130	Basic Drawing	3
GRDS 131	Color Fundamentals	3
INTA 150	History of Architecture & Interior Design I	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
Spring Semester		17 Credits
Code	Course Title	Credit Hours
INTA 151	History of Architecture & Interior Design II	3
ENGL 102E	English for Engineering and Sciences I	3
INTA 131	Architectural Drawing II	3
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INTA 201	Interior Architecture Foundation Studio I	5
INTA 201 INTA 220		-
	Interior Architecture Foundation Studio I	-
INTA 220	Interior Architecture Foundation Studio I	5 3
INTA 220 Summer Semester	Interior Architecture Foundation Studio I Introduction to Computer Aided Drawing	5 3 9 Credits
INTA 220 Summer Semester Code	Interior Architecture Foundation Studio I Introduction to Computer Aided Drawing  Course Title	5 3 9 Credits Credit Hours

Year II		
Fall Semester		15 Credits
Code	Course Title	Credit Hours
ENTR 200	Entrepreneurship: Innovation and Creativity	3
INTA 202	Interior Architecture Studio II	5
INTA 202A	Design Theories I	1
INTA 221	Advanced Computer Aided Drawing	3
INTA 240	Interior Construction	3
Spring Semester		15 Credits
	Course Title	
Code	Course Title	Credit Hours
INTA 203	Interior Architecture Studio III	Credit Hours 5
INTA 203	Interior Architecture Studio III	5
INTA 203 INTA 203A	Interior Architecture Studio III  Design Theories II	5
INTA 203 INTA 203A INTA242	Interior Architecture Studio III  Design Theories II  Professional Practice for Interior Architecture	5 1 3
INTA 203 INTA 203A INTA 242 INTA 234	Interior Architecture Studio III  Design Theories II  Professional Practice for Interior Architecture  Modeling & Rendering  Environmental Control System in Interiors	5 1 3 3
INTA 203 INTA 203A INTA 242 INTA 234 INTA 250	Interior Architecture Studio III  Design Theories II  Professional Practice for Interior Architecture  Modeling & Rendering  Environmental Control System in Interiors	5 1 3 3 3

# **Course Description**

# INTA 130 Architectural Drawing I

(3 crs)

The course will supply the students with basic skills in the graphic communication of visual expressions. Practice will be provided for the control of the line thickness in plans, elevations and sections drawing as well as for generating clarity in spacing and crossing of lines in defining planar elements. These skills will emphasize space geometry expression in two-dimensional drawings. Skills to be addressed include: orthographic and parallel lines drawing techniques as well as lettering.

# GRDS 130 Basic Drawing

(3 crs)

Freehand drawing with emphasis on the development of skills in perceiving line, shape, form, proportions, shading and rendering techniques in various types of pencils, charcoal and ink. Material and methodology: still life, landscape and life drawing, along with basics in perspective drawing.

#### INTA 131 Architectural Drawing II

(3 crs)

This course deals with more complex exercises on parallel line and orthographic drawings as well as with interiors perspective drawings. The knowledge of understanding and use of international conventions of architectural drawing symbols will be given. Architectural drawing phases as well as their content will be highlighted. Skills to be addressed include: orthographic and perspective drawing, interior architecture drawing symbols. Prerequisite: INTA 130.

#### **GRDS 131** Color Fundamentals

(3 crs)

Fundamentals of color theory and its application for the graphic designer, class lectures and demonstrations followed with exercises in color perception, color mixing, and the use of color symbolism from different cultural perspectives. Application of traditional and digital media.

# INTA 150 History of Architecture and Interior Design I

(3 crs)

This course provides an overview of architecture and interior design's history development as a collective expression of art, architecture, science and culture times and as a resource to stimulate new ideas of eras spanning from prehistoric times up to the end of the Gothic period. Awareness of design typology, specific elements of interior decoration and ornamentation, furniture design evolution, metal works, ceramic and textile.

#### INTA 151 History of Architecture and Interior Design II

(3 crs

This course is an overview of architecture and interior design's history development from early Renaissance until the beginning of Industrial Revolution (18th Century). The course provides the students with comprehensive knowledge of Islamic Architecture and Interior Design's history as well as with awareness of design typology, specific elements of interior decoration and ornamentation, furniture design evolution, metal works, ceramic and textile. Prerequisite: INTA 150.

#### INTA 201 Interior Architecture Studio I 23

(5 crs)

The course is designed to provide students with communication skills and visual studies through 2D and 3D drawings. A set of projects given during the course will provide students with basics knowledge of design elements such as concept, space, scale, proportion, movement, texture, color and light. Skills to be addressed: small scale residential buildings interiors design (spaces types and relationships, sizes and functions) projects; projects presentation; modeling. Prerequisites: INTA 130, GRDS 130.

# INTA 202 Interior Architecture Studio II

(5 crs)

The course continues the content and purpose of INTA 201 and concentrates on students' design skills improvement. Skills to be addressed: medium scale residential buildings (two-three-four storied dwellings) interiors design projects, and projects visualization (including modeling). Prerequisite: INTA 201.

#### INTA202A Design Theories I

(1 crs)

The course is theoretical support to the course Interior Design Studio II and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 202.

# INTA 220 Introduction to Computer Aided Drawing

(3 crs)

Provides training for basic CAD applications using the Windows operating system. Develops basic familiarities and proficiency with applications commonly encountered during professional training. Prerequisite: CMPS 100B.

#### **INTA 240** Interior Construction

(3 crs)

Basic interior detailing, millwork and cabinetry elements. These elements must be developed and coordinated to construct interior space. Detailing, technical drawings, specifications and scheduling are therefore integral to design development. Prerequisites: INTA 201, INTA 131.

#### INTA 203 Interior Architecture Studio III

(5 crs)

Advanced concepts are used in the development and application of planning techniques and spatial concepts. Emphasis is on research and analysis of existing structures, contextual development of interior solutions, building constraints, accessibility standards and specialized product and materials specifications. The attention will be attracted to the space/form shaping and compositions within the limits of the built environment. Students will obtain skills in designing large-scale residential projects. Projects topics may include: large scale residences, blocks of flats, etc. Prerequisite: INTA 202.

#### INTA203A Design Theories II

(1 crs)

The course is theoretical support to the course Interior Design Studio III and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 203.

#### INTA 221 Advanced Computer Aided Drawing

(3 crs)

Computer-aided architectural design focuses on a variety of CAD applications in order to show the similarities (basic principles of CAD) and the idiosyncrasies of the individual applications, as well as modeling of existing interior spaces utilizing selected CAD applications. Prerequisite: INTA 220.

# INTA 234 Modeling and Rendering

(3 crs)

Rationalized, geometrical approach to the perception and description of form. Selected examples of architectural form are first rigorously analyzed to re-derive their constructional logic and then are "built" as detailed electronic models. Students explore the potential of digital design technologies as instruments to achieve vivid, authentic, holistic simulations of architectural reality, appropriate to the testing of architectural ideas. Taught in a modified studio format. Prerequisites: INTA 220.

# **INTA 299** Practical Training

(0 crs)

Diploma students are required to undergo 8- weeks of professional training in Interior Architecture with a qualified firm.

# **INTA 232** Visual Presentation Techniques

(2 crs)

This course intends to emphasize the interior design visual communication as a range of styles and techniques. The students will be provided with up-to-date information of visual presentation techniques. Different phases of the design are studied in terms of connection between design process and presentation. Skills to be addressed: presentation of interior spaces in written and visual language; presentation technique tools and means including modeling. Pre-requisite: INTA 234.

# INTA 235 Color and Light

(2 crs)

The fundamentals, principles and art of light and color, as well as their visual and physical effects in interior design are studied. The course explores light and color as important elements in interior space through the study of related perceptual and physical factors. It introduces relevant terminology to define light and color as attributes of architectural and interior space: illumination levels and temperatures, light sources, fixtures, materials, etc. Prerequisites: GRDS 131, INTA 201.

#### INTA 241 Materials in Interior Design

(2 crs)

The course introduces to the students the large range of materials used in interior architecture. The understanding of materials, furnishings and accessories' selection criteria and usage of them based on analyses of human factors will be introduced. The importance of using local and ecological materials in interiors as well as considering local market availability will be studied. Skills to be addressed: material for interiors (including ecological), materials selection criteria. Prerequisite: INTA 240.

#### **INTA 242** Professional Practice

(3 crs)

This course prepares students for the professional world. Starting with self-promotion, resume writing, building up a portfolio then addressing ways to set up a professional practice, client handling, scheduling projects, writing estimates, billing, etc., while covering the basic knowledge of construction planning, and site inspection. The material is covered through lectures, discussions, assignments, field trips to Interior and/or Architectural agencies and construction sites.

#### INTA 250 Environmental Control Systems in Interiors

(3 crs)

Provides an integrated presentation of environmental control systems (lighting, heating, ventilating, air conditioning, sanitary and acoustics) with special attention to the needs of interior designers. Systems are presented as they influence one another and as they constrain interior space planning and design. Prerequisite: INTA 240.

#### INTA 304 Interior Architecture Studio IV

(5 crs)

The course continues the content and purpose of INTA 203 with a special emphasis on planning techniques and volumetric concepts for the design of large-scale buildings' interiors. Course components include research applied to selected client identities, design criteria for special population groups, building constraints and accessibility standards, modular design, project specifications and creative presentation methods. Projects topics may include: educational facilities, office buildings, shopping centers, etc. Prerequisite: INTA 203.

#### INTA304A Design Theories III

(1 crs

The course is theoretical support to the course Interior Design Studio IV and provides students with comprehensive knowledge required for implementation of studio projects. Co-requisite: INTA 304.

#### INTA 342 Furniture Design

(2 crs)

Exploration of the basic function and design of furniture as it relates to human factors, such as anthropometrics and ergonomics. The course provides a link between historical, theoretical and practical experience. It defines the elements of form, function and aesthetic by exploring experimental concepts and adopting alternative ways of thinking about the objects that surround us. Furniture models built to scale, or other presentation techniques, will be applied as needed to effectively support the evolution of new concepts. Prerequisite: INTA 240.

#### INTA 305 Interior Architecture Advanced Studio V

(5 crs)

A comprehensive design project management, integrating all aspects of design, theoretical, technological and representational, that allows students to perform various scales of investigation within one design problem. Students will obtain skills on working drawing's production. Projects topics may include: governmental facilities, small structural changes and additions to buildings, headquarters, T.V. studios, etc. Prerequisite: INTA 304.

# INTA 305A Design Theories III

(1 crs)

The course is theoretical support to the course Interior Design Studio IV and provides students with comprehensive knowledge required for implementation of studio projects. Co-requisite: INTA 305.

# INTA 335 Modern Practices in Interior Design

(3 crs)

Focus on 19th and 20th century interior design theories and practices, exposing students to the various international schools of thought. Lectures and discussions focus on practitioners who have influenced contemporary practices worldwide. Prerequisite: INTA 151.

# INTA 344 Advanced Detailing

(3 crs)

Development of a greater focus on holistic and sustainable approaches to design. Issues such as demand and supply of energy and water, and the generation of waste are covered. Principles of reduce, reuse and recycle are reiterated. Predominant emphasis is on practical strategies directly applicable in design. Material is presented as lectures and seminars, supplemented with readings. Students should present a detailed project at the end of the course. Prerequisite: INTA 240.

#### INTA 390 Exhibition Design

(3 crs)

Essential research, planning and design tools to prepare and produce persuasive exhibition and environments such as product shows, museums and gallery interiors. The course explores topics of planning, lighting, stagecraft, narrative composition and human perception. Prerequisites: INTA 344, INTA 305, INTA 235.

# INTA 400 Practical Training

(0 crs)

Bachelor students are required to undergo eight-week of on-the-job experience with an approved professional firm. Prerequisite: INTA 305.

#### INTA 406 Interior Architecture Advanced Studio VI

(5 crs)

This is a research directed design studio. Students pursue directed research in support of a design investigation. It focuses on topics related the aspects of architectural design such as history/theory, technology, representation, and heritage resource management etc. Solutions for the problems in interior architecture related to the high levels of complexity, with emphasis on reuse and adaptabilities are covered. Project topics may include: leisure facilities buildings and public spaces design. Prerequisite: INTA 305.

#### INTA406A Design Theories V

(1 crs)

The course is theoretical support to the course Interior Design Studio VI and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 406.

# INTA 491 Final Year Project I

(3 crs)

Students are required to choose a design topic with the guidance of a supervisor and approval of faculty. Each student prepares an individual program for INTA 492, concluding with a formal and bound document. Prerequisite: INTA 305.

# INTA 492 Final Year Project II

(5 crs)

Involves individual design resolution based upon the research findings initiated in INTA 491. The final project is developed under the guidance and advice of a faculty supervisor and is presented and defended in a formal public jury. Prerequisite: INTA 491.

#### INTA 445 Design Management

(2 crs)

Principles and practices of the economic and commercial aspects of architectural and design practice in a global economy. Microeconomics theory as it applies to private enterprise: basic business economics, planning and management. Attention is also given to the processes and skills required in establishing an independent architectural office. Prerequisites: GRDS 340, INTA 406.

# INTA 450 Introduction to Building Information Modeling (BIM) (3 crs)

Building Information Modeling is a smart 3D model-based process that provides students with a wide range of skills for creating and manipulating building design projects faster, more economically, and with less environmental impact. Autodesk Revit will be used to develop building design, visualization, drawing sets, tables, and detailing.

#### INTA 497 Special Topics in Interior Architecture

(3 crs)

This independent course will cover a particular topic suggested by a faculty member in the program and conducted by a student having the required pre-requisites. Prerequisite: Permission of the Instructor, and approval of the Department.

# INTA 501 Identification and Evaluation of the Historic Built (3 crs) Environment

Methods, techniques and theories of researching, analyzing, documenting and evaluating the historic built environment. Includes architectural survey field methods, documentation techniques, archival research and approaches to evaluating historic significance. Prerequisite: INTA 151.

# INTA 502 Environmental Design Research

(3 crs)

Advanced skills for identifying research questions and methods for accomplishing research in the environmental field. Design research project is planned. Emphasis on research process including problem identification, literature review, data collection and analysis. Prerequisite: INTA 250.

#### INTA 504 Human Factors

(3 crs)

The psychology of the client or user is a crucial factor influencing the design of the environment and the practice of interior architecture. Facts will be gathered about the interaction of the environment and user's culture, gender, stage of life cycle and physical characteristics. Prerequisite: INTA 241.