## Faculty of Applied Engineering and Urban Planning

# Architecture Department

## Course Description

## 2025-2020

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Second level

### 1st term

---

1. Course number and name: **Engineering Statics (ENGI 2313)**
2. Credits and contact hours

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **ENGI 2313** | 3 | 3 | 0 | 0 |

3. Course Information:

| | |
|---|---|
| **Required/ Elective** | Required |
| **Prerequisites** | Physics 2 (BENG 1304) |
| **Course Description** | This course is designed to develop the topics of theory and applications basic engineering mechanics, including a review of the vectors, calculate the net force, equilibrium equations for small objects and solid objects, draw curves internal forces: bending moments, shear forces and friction forces. Besides dynamic objects (such as power, wheel, work, energy, collisions and the amount of movement). |

**Course Objectives:**

**Course seeks to enable students to achieve the following objectives:**

- Demonstrate ability to architectural knowledge for students through knowledge of the structural foundations
- Explain the most important theories and applications of basic engineering mechanics.
- Study the field by balance sense of structural as well as the disposal of structural elements under the effect of loads.

**Course Outcomes :**

- Specialized knowledge in the field of engineering mechanics as an area of structural engineering.
- Solve engineering problems related to static and moving objects.
- Use Newton's Second Law of Motion.
- The ability to use of methods of labor and energy to solve engineering problems related to solid objects moving in the flat movement.

1. Course number and name: **Visual training (BARC 2203)**
2. Credits and contact hours: (2 Credit. Hrs., 1 theory per Week + studio per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2203** | 2 | 1 | 2 | 3 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Engineering drawing (BENG 1309) |
| Course Description | This course discusses the visual perception of shapes characteristics, sensory relationship between them, space forming, impact of structural systems on the configuration, and the visual illusion. In addition to understand the color theory and aesthetic values in order to determinant of their application on architectural design. |

4. **Course Objectives:**

**Course seeks to enable students to achieve the following objectives:**

- Introduce students the principles and elements of the three-dimensional form design at the Art and Architecture theoretically through the presentation and analysis of projects.
- Develop a design student's skills through practical exercises to develop the cognitive skills of perception and visual illusion, in the formation of three-dimensional configurations of the line, the planes, the mass by using different materials.
- Give the students practical skills in the field of graphic architectural drawing.

5. **Course Outcomes**

- Specialized knowledge of visual perception.
- Understand the means of architecture design.
- Expressive capabilities of the architectural concepts development.
- Ability to output different architectural drawings and models
- Understand of presentation techniques through different skills

1. Course number and name: **Ancient architecture (BARC 2305)**
2. Credits and contact hours (3 Credit. Hrs.,3 Theory per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2305** | 3 | 1 | 0 | 0 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | - |
| Course Description | The course studies the architectural contributions of Ancient, classical, medieval, and renaissance societies are surveyed. It is along with their relationships to the cultural heritage of the Western World. It also discusses the development of the most important architectural and construction system used. |

4. **Course Objectives:**
   - Introduce the architectural styles through the ancient and medieval times.
   - Analyze history of ancient architecture and its philosophy
   - Discuss the evolution of architecture pattern impact to give way to the birth of modern architecture.

5. **Course Outcomes:**
   - knowledge of the patterns and attributes or philosophy of architecture in ancient civilizations
   - Ability to discern and learn styles and architectural elements and attributes as well as structural elements
   - knowledge of architectural styles in the Middle Ages

1. Course number and name: **Graphic Design (BARC 2307)**
2. Credits and contact hours (3 Credit. Hrs., 2 studio per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2307** | 3 | 0 | 3 | 6 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Engineering Drawing (BENG 1309) |
| Course Description | This course is an introduction to the graphic representation of nature, manufactured objects and the built environment. It seeks to develop an increased desire for architectural exploration and discovery by providing instruction in architectural graphic notation, analytical drawing, and free hand sketching. It focuses on the ability of architectural drawing conventions and techniques to expand our understanding of natural and built form, in context. |

4. **Course objectives:**
   - Teach different methods of architectural presentation
   - Give students the ability to display architectural concepts
   - Learn about the various methods of architectural presentation and applied to the exercises that the student is preparing during this course.

5. **Course Outcomes**
   - Understanding and read terms of architectural drawing.
   - Knowledge of the architectural designs elements.
   - Acquire the skills of expressing architectural ideas and mastering the techniques of shadows and hatching in the architectural drawing.
   - The ability to understand architecture standards.
   - Understanding of drawing and modeling presentation skills.

1. Course number and name: **Free hand sketching (BARC 2109)**
2. Credits and contact hours (1 Credit. Hrs., 2 studio per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2109** | 1 | 0 | 1 | 2 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | - |
| Course Description | The course is mainly a practical oriented course. It is an introduction to freehand sketching to express ideas using various freehand tools, as well as the sense of reflecting light, drawing shadow, adjusting sizes, choosing the nature of the material, pulling in various color, shape, space and texture.<br>The practical exercises is to be accomplished within the studio lectures which would primarily involve training on a variety of models, and to express them in various freehand drawing tools using pencils, ink pen, wood and water colors, in addition to using other materials and methods dedicated to score the objectives of this course. |

4. **Course objectives:**
   - Provide the students with skills associated with freehand sketches of drawing the forms and shapes while taking into account the scale.
   - Understanding hand-drawing forms, skills, and architecture sketching techniques.
   - Introduce the students to the principles of how to draw a perspective.
   - Enhance the students 'sense of light and shadow, sizes and the definition of the principles of drawing a perspective.
   - Prepare students for architectural graphics and design in higher levels
   - Gain practical skills associated with freehand drawings using colors of different kinds.

5. **Course Outcomes :**
   - Implementing skills and techniques through several drawings.
   - Enhance Hand-Mind-Eye relation and skills
   - Exercises on a variety of models, or express them in various freehand drawing tools.
   - Improve the students the ability to draw using their hand and also enhance their graphic communication using different media; and

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Second level

### 2nd term

---

1. Course number and name: **Structural Analysis-Architecture (BARC 2302)**
2. Credits and contact hours (3 Credit. 3Hrs. Theory per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2302** | 3 | 3 | 0 | 1 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Engineering static (BARC 2301) |
| Course Description | **This course covers** the basic principles of power, resistant materials, the foundations of the specific installations static analysis of trusses and frames. In addition of deflection of statically determinate structures, moment area methods, conjugate beam, virtual and real work.<br>The course also searches facilities behavior under loads located them and the extent of affected loads and posed underneath (deformations). Then the course discusses the relationship between the structural and architectural design principles to facilitate the work of the engineer/ architect of his/ her. |

4. **Course objectives:**
   - Identify the skills about constructional systems and the main structures under construction.
   - Analyze in terms of the structural stability, how to address them.
   - Determine the expected external loads.
   - Classify of these loads
   - Calculate the internal cutting forces and bending moments and axial forces.
   - Calculate internal stresses and the specific facilities static.
5. **Course Outcomes:**
   - Knowledge of various construction systems, such as brackets, cables, frames, trusses and belts.
   - Specific installations static analysis.
   - Know the importance of identifying and selecting appropriate structural system of architectural design.
   - Understanding of the obstacles and mechanisms of its implementation, and therefore work on the integration of design.

1. Course number and name: **Surveying For Architecture (BRCH 2204)**
2. Credits and contact hours (3 Credit. Hrs., 1h. Theory per Week + 3h. practical)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BRCH 2304** | 2 | 1 | 1 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | - |
| Course Description | This course is an introduction to the principles of surveying by using different measurement methods such as: linear measurements; chain surveying, leveling and its applications in contouring, Route surveying, design and layout of vertical and horizontal curves, longitudinal and transverse profiles and cross sections, calculations of Areas, volumes and earthwork, Measurements of angles using the Theodolite, Tachometry and electronic distance measurements, Theory of errors and adjustments of measurements and principles of triangulation |

4. **Course objectives:**
   - Define the fundamental principles of the science of space through the theoretical part, as well as develop practical skills for students through training on hardware and cadastral work.
   - Develop teamwork skills to produce a practical project.
   - Increase students' knowledge of the cadastral works
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:
   - The acquisition of cognitive skills in the basic principles in the science of flat space.
   - Practical knowledge on the use of surveying devices.
   - Knowledge of the skills of teamwork.
   - Implementation of cadastral works, especially in the field of survey of buildings and streets.

1. Course number and name: **Planning & Islamic Architecture (BARC 2206)**
2. Credits and contact hours (2 Credit. 2Hrs., Theory per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2206** | 2 | 2 | 0 | 0 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Ancient architecture (ARCH 2206) |
| Course Description | The course studies how architecture and urban planning of the Islamic world has evolved throughout the varying periods. Then the student seeks analyzing architectural elements, methods and style adopted for construction and identifying the key remarks of Islamic architecture throughout the latter's distinct stages. Also this course ties contemporary development to Islamic architectural. Thus, the focus is on modern experiments showing how to achieve continuity of architectural and structural elements of Islamic architecture. |

**1. Course objectives:**

- Identify the Islamic architecture throughout the ages.
- Study and analyze of the most important features, characteristics and advantages of each Islamic architecture style.
- Provide cognitive skill related to buildings and types of Islamic architecture style in different stages, as well as the design and decoration used strategies.
- Identify Islamic urban planning strategies and how they appear and evolve.
- Take advantage of the characteristics of Islamic architecture and its application in architectural design.
- Devise Islamic elements used across various stages appropriate to the surrounding environment, and thus the mechanism used in the current architecture.

**4. Course Outcomes:**

The student upon completion of his study to this course is able to:

- knowledge in architectural style of Islamic architecture such as the characteristics and features of each style
- Acquire practical skills through the exercises
- Acquire a depth of knowledge in heritage values.
- Gain research skills by the students on producing reports related to data collection and analyses.

1. Course number and name: **Principles of Environment & architectural Design** (BARC 2308)
2. Credits and contact hours (3 Credit. Hrs., 1Theory per Week + 6 studio per Week )

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 2308** | 3 | 2 | 4 | 6 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Graphic design (BARC 2307) |
| Course Description | This course discusses the topics related to the design concept and approach, development and final presentation, site analysis and functional relationships, configuration and the relationship between architectural form and space. Also the course studies the resolution of a number of simple design problems. The students study of the formative influences such as climate, sociology, economy, technology, materials. In addition, how to find new solutions in different contexts such as solving problems related to the environment and widely applied in an architectural project design takes into account the environmental dimensions |

4. **Course objectives:**
   - Introduce students to the basics and principles of architectural design strategies.
   - Clarify the relationship between form and void and architectural configuration.
   - Clarify the architectural design methodology and steps from the beginning of the project to the end through a sound analysis of the way the problem of design and related.
   - clarify some architectural concepts related to the project such as architectural idea, philosophy, creativity, and presentation
   - Identify the environmental aspects of architecture, such as the concepts of sustainable architecture and construction, green architecture, sustainable design, thermal comfort, thermal stability, etc.
   - Use some elements of traditional architecture in a modern technical style, innovation and other environmental elements of the proposed project during the course.
5. **Course Outcomes:**
   - Knowledge of architectural design and decision making approaches.
   - The production of a several small projects, which has different architectural function and include configuration of surrounding environment.
   - Ability to careful analysis of aspects of any problem to build architectural form and function are complementary and finding solutions to design problems.
   - The ability to choose the right architectural design of the various regions and achieve in terms of thermal comfort (routing, selection of local building materials, architectural configuration, etc.).
   - Gain design research skills through contemporary environmental solutions

1. Course number and name: **Computer Aided Architectural Design** (CAAD) (BARE 2210)
2. Credits and contact hours (2 Credit. Hrs., 4h. lab. per Week)

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 2210** | 2 | 0 | 2 | 4 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Graphics Design (BARE 2307) |
| Course Description | This course studies architecture discipline applications, computer modeling and its applications. Exercises at the module focus on computer-based 3-D geometrical modeling, including photo-realistic and abstract methods of rendering, materials simulation, texture mapping, reflection mapping, image processing, color-table manipulation, photomontage, lighting, animation, and combined media applications. |

4. **Course objectives:**
   - Learn to use architectural design software (Auto-CAD, Sketch-up) in architectural design.
   - Seek to develop design skills and abilities using relevant software.
   - Improve the quality of architectural design and engineering work and design productivity.
   - understand of the three dimension to the idea that design by using computers to exchange ideas and develop them.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Acquire specialized knowledge in architectural software.
   - Master the use of these programs for expressing architectural ideas as well as architectural display.
   - The implementation of a number of architectural projects drawn in different computer programs.
   - The developing of drawing and 3D presentation techniques
   - Acquire knowledge of various computer programs in architecture.

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Third level

### 1st term

---

1. Course number and name: **Scientific Research Methods and Applied Statistics** (BENG 3315)
2. Credits and contact hours (3 Credit. Hrs.,2 Theory per Week and a discussion )

| Course Code | Credits | theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3315** | 3 | 2 | 1 | 2 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | - |
| Course Description | This course is designed to introduce a variety of topics related to the scientific research, including: research types, components, methods, writing requirements, and data presentation. The course will include the right approaches for describing data, discussing results, and following the evidence to develop conclusions that are free from speculations and incoherent theories. Part of the course will be focused on structuring of thesis and following the standard writing techniques.<br>The second part will be offered in the lab, which will be focused on teaching applied statistics principles using SPSS. It will study processing and analysis of data. Sampling fundamentals, along with the theory of estimation, parametric tests of hypotheses, and Chisquare test. Case studies are introduced and studied in order to explain the necessity of using the aforementioned statistical analysis techniques. |

4. **Course Objectives:**
   - Introduce students to the basics and principles of scientific research methods and applied statistics.
   - The student will be trained on developing a research question and objectives that are based literature review.
   - The student will able to choose the right approaches for describing data, discussing results, and following the evidence to develop conclusions.

5. **Course Outcomes :**
   - Follow the scientific approach to explicitly identify the research problem, and to develop the research question and objectives of their own research;
   - Ability to select the most appropriate methodology of their own research
   - Ability to conduct data analysis and present them in a scientific manner;
   - Ability to discuss results and to tangibly approach conclusions and recommendations.

1. Course number and name: **Theories of Architecture (BARE 3311)**
2. Credits and contact hours (3 Credit. Hrs., 3Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3311** | 3 | 3 | 0 | 0 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Urban Planning and Islamic Architecture |
| Course Description | The course considers the changing role of theory with respect to architectural, urban, and landscape practice over the 19th to 21st centuries. The course reviews philosophical foundation to emerged forms and shapes in architecture, in addition to analyzing architectural styles and schools of thought. The analysis illustrated in this course primarily deals with cultural factors, in addition to social, economic, political and technical aspects, which have contributed to the philosophical trends. |

4. **Course Objectives:**
   - Identify various architectural movements
   - Highlighting the key aspects of architecture styles and modern movements in art.
   - Study the key architects and their works of each style or school of thought.
   - Touch upon the philosophy behind the architecture elements, the construction system being used, how the function has been organized, the materials for construction being adopted and the aesthetic part of each style.
5. **Course Outcomes :**
   - Develop their own architecture design on the basis of philosophical trends and styles of architecture .
   - Have depth of knowledge in the aspects related to each school of thought analysed
   - Be familiar with aspects related to the key styles of architecture, which includes modernism and postmodernism in architecture and their philosophical foundations.
   - Gain analytical skills through the students analysing various architectural styles, as part of assessing their understanding.
   - Develop their skills of posing critiques through discussions citied throughout this course.
   - Acquire report writing skills when required as part of the performance to organize reports on themes or topics covered in this course.
   - Enhance their ability to handle architectural language and to be familiar with the works of key architects, particularly those who cite their works parallel to modernism and postmodernism.

1. Course number and name: **Building construction 1- Architecture** (BARE 3313)
2. Credits and contact hours (3 Credit. Hrs., 1Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3313** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Graphics Design (BARE 2307) |
| Course Description | This course is familiarizing students with the executive side of the engineering projects in terms of: identifying different methods of construction, building materials, regulations, site works, foundations, walls, floors, ceilings, stairs, etc. Then allow student to know how to set up working drawings and detailed to all structural construction elements, and how to choose the most suitable architectural design for the available tools and materials. The course includes site visits. The student will learn about specifications and applications of different building materials of concrete, steel, metals, glass, wood and others. Also they will examine the engineering tests required for construction materials and how the implement. |

4. **Course Objectives:**
   - Familiarize students with building systems and its various elements
   - Study implementation mechanisms and supervision of the construction phases of the structural (primary) and various which include (foundations, walls, floors, ceilings, stairs and others
   - Identify local building materials in terms of their location and mechanisms manufactured various forms
   - Identify engineering tests of materials
   - Draw the shop drawings.
   - Understand of building systems and its various elements and construction stages, especially skelton system.

5. **Course Outcomes:**
   - Knowledge of different materials to build and understand the composition of the executive and requirements, and to identify the different characteristics and how to use them
   - The acquisition of practical skills through visits and follow-up the construction of various projects.
   - Acquire the ability to deal with architectural drawing and details and problem solving.
   - Acquisition of checking execution drawings skills and read properly.
   - Knowledge of the properties of construction materials engineering and physics and its applications.
   - Students are required to submit a report to describe structural system method of construction and materials.

1. Course number and name: **Architecture Design Studio 1** (BARE 3315)
2. Credits and contact hours (3 Credit. Hrs., 1Theory per Week and 6h. studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| BARE 3315 | 3 | 1 | 3 | 6 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Principles of Environmental and Architectural Design (BARE 2308) |
| Course Description | The course specialist on the types of residential buildings. It explores architectural design problems of complex programs and intermediate scale, emphasizing circulation, formal intent, and specialized technology in both historic and contemporary urban contexts. |

**4. Course Objectives:**

- Enhance students' capability to handle design process, together with the key issues involved.
- Understand the key issues deemed essential to handle concepts of designing various residential buildings and requirements for each one..
- Identify the characteristics of each residential type and analyze the best to achieve a functional program.
- Acknowledge the design requirements of each dwelling type.
- Explore the basis to the design of each dwelling type: this would range from independent housing units, residential buildings and small housing projects.

**5. Course Outcomes :**

- Awareness of the key issue embodied in the design process.
- Have depth of knowledge in the many types of residential buildings, the design standard, and functional requirements.
- Acquire analytical skills when analyzing case studies of residential projects to be accomplished at the stage of preliminary design;
- Develop their design skills in terms of exploring the key issues involved in finalizing architecture concepts and how best to meet the architecture design requirements.
- Develop presentation skills through drawings and presentation.
- Learn about the key stages of the design process, together with each stage's character and/or difficulty.

1. Course number and name: **Design of Concrete Structures- Architecture** (BARE 3317)
2. Credits and contact hours (3 Credit. Hrs., Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| BARE 3317 | 3 | 3 | 0 | 1 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Structural Analysis for Architecture (BARE 2302) |
| Course Description | **This course** study the various construction systems and theories of structural design of concrete. Then, studies design concepts and analysis on the basis of the supreme stresses and strains of security, and the design of reinforced concrete elements, such as belts, columns, ceilings and foundations. The course studies constructional systems for halls structurally in a manner commensurate with the architectural design needs. |

4. **Course Objectives:**
   - Enhance the students' knowledge of the importance of structural aspects and their applications in architecture.
   - Studying analysis and structural design mechanism, especially the design of concrete structures. Study design of reinforced concrete elements mechanism, such as belts, columns, ceilings, foundations and drawers.
5. **outcomes :**

   The student upon completion of his study to this course is able to:

   - The acquisition of knowledge and skill related to different design of concrete structures
   - Different sections of concrete design, such as columns, bridges, slabs and foundations
   - The design project of small house, including different building components.
   - The ability to appropriate architectural design for constructional requirements.

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Third level

### 2nd term

---

1. Course number and name: **Introduction to Urban Planning (BARE 3312)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio )

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3312** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (1) (BARE 3315) |
| Course Description | The course is concerned with the stages embodied in the planning process and with the levels of planning, which includes national, regional, local, detailed and sectorial planning. The student will discuss the socio-economic issues that affect the planning process and the latter's outcome. Also get engage in active participants, rather than passive observers. Which will develop students' knowledge and understanding of urban planning; in addition to help improve students' skill and techniques in applying the principles discussed in this course through a practical project where students will be trained on how to apply planning activity in a real life work situation. |

4. **Course Objectives:**
   - Knowledge of the planning process, the latters' circumstances and legislation besides planning levels and, eventually, the aspects that affects planning process and its outcomes.
   - Train the students on real planning issues and develop their capacity to join planning teams.
   - Train the students to work in a team with different relevant specialization
   - Stress the abilities of scientific research.
   - Develop students' ability concerned with communication with local planning relevant institutions and organizations; the knowledge of the latter's role and responsibility.
5. **Course Outcomes :**
   - depth of knowledge in the physical planning science and the development in this essence-theories and practice.
   - Have depth of knowledge in previous and contemporary urban planning principles within local, national and international levels.
   - Gain mental skills on the stages of urban planning at all levels: including, current situation survey and analysis, problem formulation, suggested planning scenarios, approaches and, eventually, follow up.
   - Gain transferable skills associated with team work.
   - Enhance students' communication skills.

1. Course number and name: **Introduction to Interior Design (BARE 3314)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio )

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3314** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (1) (BARE 3315) |
| Course Description | This course discusses the key issues for interior design like: the concept of interior design, it arises as a profession, the design of the interior spaces, decorate the interior spaces, past and present designers internal business . Also with the factors that influence in interior designs and in particular the principles of design, lighting, color theory, interior design patterns and different materials in the interior finishes. Assessment of internal vacuum familiar to students, where it is an analysis of internal voids, identify the problems, and find the solutions proposed. |

**4. Course Objectives:**

- Identify the principles of interior design and related considerations, such as lighting, color, ventilation and building materials.
- Training in the design of furniture and the identification of their own interior spaces.
- Put out an interior design projects and presentation mechanisms for interior design projects.
- Identification of decorative elements in architectural spaces.
- Solve the design problems of internal spaces.

**5. Course Outcomes :**

- Knowledge of the principles and criteria for the design of interior spaces in terms of function, circulation and materials selection, etc.
- Acquisition of analytical skills through the study of examples and case studies.
- Produce a project in the field of interior design.
- Acquire a mental skill to find solutions to the design problem.
- Enhance interior design presentation skills
- The design research about contemporary solutions for interior design.

1. Course number and name: **Computer Applications in Architecture (BARE 3216**)
2. Credits and contact hours (2 Credit. Hrs.,2 lab per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3216** | 2 | 0 | 2 | 4 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Computer Aided Architectural Design (BARE 2210) |
| Course Description | This course discuss software applications relevant to architectural design How to use design software for architects in 2D or 3D dimension, and use the rendering; by identifying the tools provided by the program for drawing like draw floor plans and facades. |

4. **Course Objectives:**
   - Understand the tools and icons available in the different applications to facilitate the project output.
   - Understand the role of software in the output of the architectural design, architectural production and the development of architectural design and output 2D and 3D.
   - Understand the mechanism of action of icons and tools available in different programs, as well as its applications to draw architectural elements.

5. **Course Outcomes:**

   The student upon completion of his study to this course is able to:

   - Understanding of presentation techniques using Photoshop and 3DsMax
   - Keep an eye of technological progress, in terms of improving productivity for the architectural project and show.
   - Implement different skills and technologies through several small tasks
   - Develop presentation techniques.
   - Gain practical skill concerning the production of architecture project using computer programs.

1. Course number and name**: Building Construction 2- Architecture (BARE 3318)**
2. Credits and contact hours (3 Credit. Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3318** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Buildings Construction (1) - Architecture (BARE 3313) |
| Course Description | This course study finishes for interior and exterior of buildings, expansion and landing joints, and insulating materials, interior finishes materials, kitchens, bathrooms, fireplaces, doors and windows. The course set up working drawings and details of medium-size buildings in line with standard |

**4. Course Objectives:**

- Familiarize students with building systems and its various elements.
- Identify implementation process and supervision of construction of the different stages and special finishes, such as electrical and plumbing installations, plastering, painting and tile cladding, kitchens, bathrooms, doors, windows, and others
- Draw the shop drawings.

**5. Course Outcomes :**

The student upon completion of his study to this course is able to:

- Acquisition of execution drawings skill and read it correctly
- The production of a number of working drawings.
- Specialized knowledge of building systems and its various elements and process of implementation stages of construction and finishes
- Acquire the ability to deal with architectural details and translate them on the ground
- Enhance execution drawing skills
- The acquisition of practical skills through visits and follow-up the construction of various construction projects.

1. Course number and name: **Architecture Design Studio 2 (BARE 3320)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3320** | 3 | 1 | 3 | 6 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (1) (BARE 3315) |
| Course Description | This course discusses the design of public, commercial and office buildings and its design standards. The course provide a methodology for the design through studies and analysis required by the design to solve circulation problems and functional relations on a major project, in addition to a smaller scale exercises. The students analyze case studies similar to projects that are required to design, especially in public buildings and private businesses. |

**4. Course Objectives:**

- Identify students training to solve design problems.
- Find solutions for the design of buildings, structures and architectural elements in a systematic and scientifically sound way to meet the functional, aesthetic and economic, social and structural needs
- Precise identification of certain types of public buildings and private commercial and administrative types and methods of design and functional relationships between the components and the design requirements identified to public buildings, commercial, administrative and special design.

**5. Course Outcomes :**

- Understand the problem and offering solutions, developed and expressed in the show.
- Analytical skills through case studies examined by students of design courses where they are studying
- Produce a number of design projects.
- Applied skills through discussions for each project.
- Mental skills through organized thinking building on the sequence steps in thinking to reach conclusions and judgments logically.
- Acquiring national and humanitarian values by highlighting the heritage values in modern designs.
- Research skills through reports prepared by students.

1. Course number and name: **Geographic Information System GIS (BARE 3322)**
2. Credits and contact hours (3Credit. Hrs., 1Theory per Week, lab)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3320** | 3 | 2 | 1 | 2 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Surveying for Architecture (BARE 2304) |
| Course Description | This course studies information systems, basic concepts in geographic information systems. And how to collect data and converted and processed. Examine the uses and applications of GIS in planning through practical examples (database design; automate information, spatial data analysis).Identify the software related to the course content and method used. The course includes a theoretical and practical part two applied in computer labs. |

**4. Course Objectives:**

- Identify the concept and applications of geographic information systems.
- Understand data collection strategies, and entered as well as develop a mechanism utilizing these strategies applied in engineering projects using geographic information systems software
- Identify the exact method of using computer programs related to geographic information systems.

**5. Course Outcomes :**

The student upon completion of his study to this course is able to:

- Acquire specialized knowledge in the field of geographic information systems and related software
- knowledge databases, raster spatial data models, and vector data.
- Understanding the mechanisms of data input methods software related to geographic information systems, analysis and practical use in planning projects and infrastructure.
- Acquire the skill of teamwork.

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Forth level

### 1st term

---

1. Course number and name: **Engineering Economy (BENG 4317)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 3320** | 3 | 3 | 0 | 1 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Calculus (2) (BENG 1302) |
| Course Description | The course includes an introduction to the concepts governed in the determination of the economic feasibility of engineering undertakings, especially the time value of money, interest rates, depreciation, replacement, economic life, present value, rate of return, payback period. Other topics will include financing, supply and demand, private and social cost estimations, secondary and intangible benefits and costs, benefit cost models, economic risk analysis, economic optimization. |

4. **Course Objectives:**

**This course aims at:**

- Provide engineering students with the basic knowledge required to analyze cost/revenues data
- Conduct economic analyses to enable the decision to be made on an economic basis.

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Perform and evaluate present worth, future worth and annual worth analyses.
  Calculate payback period.
- Ability to define causes of inflation and measures of inflation rate.
- Carry out and evaluate benefit/cost, life cycle and choose among different alternatives.
- Conduct Break Even Analysis: Linear & nonlinear breakeven analyses.
- Perform risk analysis; decision making under risk & uncertainty.

1. Course number and name: **Architecture Design Studio** III **(BARE 4323)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4323** | 3 | 1 | 3 | 6 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (2) (BARE 3320) |
| Course Description | Building on the previous design courses, Design III addresses public building, The course addresses the design of cultural or educational buildings by analyzing the site design, solving complex tasks that involve integrating various functions while considering environmental and cultural aspects, form and structural construction. Through exercises, site visits, lectures and discussions, students are introduced to different themes and methods in understanding architecture in the urban realm. The course balances analytical skills with design interventions |

4. **Course Objectives:**
   - Apply design knowledge to an architectural problem at a basic level.
   - Evaluate the relationship of a selected range of technical, programmatic, theoretical, historical and professional issues and their implications for building design.
   - Synthesis a body of practical and theoretical knowledge into the design process.
   - Comprehend architecture and its relationship with location, program, form and representation.
   - Demonstrate design skills through an iterative and considered design process, to resolve your ideas from concept formation through to design development at a basic level.
   - Communicate design ideas at a basic level, demonstrating through building design & its representation, the aims & claims that made for the building design.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Demonstrate and articulate design skills from concept formation through to design development.(Critically analyse, evaluate and make informed judgment on a wide range of architectural problems and situations.
   - Produce of educational institute architecture building.
   - Apply design knowledge to solve a range of architectural problems in diverse contexts.
   - Communicate complex design ideas through verbal, visual and written media
   - Integrate a body of practical and theoretical knowledge into your design process.
   - Reflect upon student learning achievements in design, taking responsibility for future design direction and continued learning.

1. **Course number and name: Architecture in Palestine (BARE 4225)**
2. Credits and contact hours (2Credit. Hrs., Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4225** | 2 | 2 | 0 | 0 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Planning and Islamic Architecture (BARE 2206) |
| Course Description | The course studies traditional architecture evolved in Palestine. This includes building types and their key remarks, architectural elements, architectural styles, the architectural features, architectural effects of successive eras to Palestine, their models and forms, materials and techniques used in construction, and the evolution of architecture in Palestine in an effort to identify cultural factors that shape architecture identity in Palestine, together with the legal role in refining the architecture features. Also the course content includes an analytical theory, while the other part is design to review and study the architectural buildings in Palestinian towns and villages. |

4. **Course Objectives:**
   - Identify the characteristics of Palestinian architecture using the history as an analytical tool, focusing on the most important architectural elements and distinctive styles to be found in traditional architecture;
   - Have a depth of knowledge in building materials and construction technology being used in Palestine;
   - Draw on the method used in the Palestinian town, city planning and layout elements showing different configuration of space and place.
   - Have a depth of knowledge in architectural heritage in Palestine.
   - Develop a status that commensurate with contemporary circumstances without compromising cultural identity in Palestine.
5. **Course Outcomes:**

   The student upon completion of his study to this course is able to:

   - Gain knowledge of different styles in Palestinian architecture.
   - Skill acquisition applied through field visits to some traditional buildings in the Gaza Strip.
   - Awareness of the evolution of architecture in Palestine in terms of design, planning and construction details and hallmarks of Palestinian architecture, in relation to architectural elements being used.
   - Strengthening the sense of belonging and home and highlight heritage values.
   - Acquire research skill through the preparation of a working paper on course.

1. Course number and name: **Urban Design (BARE 4327)**
2. Credits and contact hours (3Credit. 1Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4327** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Introduction to Urban Planning (BARE 3312) |
| Course Description | This course discusses the fundamentals of urban design, as they relate to all scales of the built environment - including regions, cities, districts, neighborhoods, blocks and parcels- and will reinforce the basics of sound community planning. This course explores how public spaces have changed, and how the advent of the automobile, rapid suburbanization, and previous traditions have posed challenges for today's urban designers; contexts of the urban design principles, and how the design process might create new areas and the fundamentals of existing ones, in addition to why connectivity and walkability are crucial factors to healthy communities . Also it content addresses the question of how urban designer has a positive impact on the design of a city without designing buildings, and what tools are available to implement urban design plans and policies. Lastly, through three student projects, this course will introduce urban studio techniques and technologies and build presentation skills. |

4. **Course Objectives:**
   - Understand the urban theories and their applications, structure, urban fabric, together with blocks' arrangements and their relations to urban void.
   - Explore urban strategies in relations to space function and its configuration, pedestrian movements and vehicle circulation, including road intersections and traffic calming measures.
   - Introduce the "ideas of the city" and its components that shapes the urban space, forms, structure and design of public realms.
   - Analyze some of similar projects (as case studies) and urban programs developed during the period from the Industrial Revolution to the first half of 20th Century.
   - Present to the students the main concepts concerned with the development and design of urban entities by using an analytical approach aimed at describing urban elements, which have shaped urban spaces in time.
5. **Course Outcomes :**
   - Apply the basic of urban design;
   - Gain practice in the basic skills of urban design analysis;
   - Gain an appreciation of both the process and product of the design of the built environment;
   - Communicate design ideas through verbal, visual and written media
   - Emphasize the need for planners to learn design, and designers to learn planning; to provide practice in visual, graphic and spatial literacy.

1. **Course number and name: Environmental System in Architecture (BARE 4321)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio )

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4321** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (2) (BARE 3320) |
| Course Description | This course study various environmental systems and their applications in buildings, such as health, water supply engineering, sanitation, lighting and acoustics and thermal insulation and mechanical installations. And includes two parts, theoretical and practical projects and part laboratory practice. |

4. **Course Objectives:**
   - Identify the impact of modern technology in the design and construction process.
   - Learn the scientific foundations for principles of heating and cooling, plumbing, lighting, acoustics and its applications in buildings.
   - Familiarity with various environmental issues.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Understanding of environmental systems in architecture,
   - Examine and experiment the effect of the proposal solution in the building.
   - Tethering capability for all phases of architectural design architectural issues and environmental issues in terms of architectural space design externally and internally,
   - Produce a practical project.
   - Communicate design ideas through verbal, visual and written media
   - Gain a full awareness of the relationship between the architectural design and related environmental issues in terms of satisfaction warming, saving energy, acoustics and other processing,
   - Calculating and assessing the environmental performance of buildings through software.

1. Course number and name: **Specifications and Quantities Surveying(BARE 4319)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4319** | 3 | 3 | 0 | 1 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Building Construction (2) - Architecture (BARE 3318) |
| Course Description | **This course covers the topics:**<br>• Examine the preparations necessary for the preparation of tenders and specification of building materials in terms of quality, level of industrialization and the methods applied.<br>• Focus on acting through the tables and diagrams and instructions, plus specifications and application.<br>• Individual and collective projects that handled and practice calculating quantities in a practical way. |

4. **Course Objectives:**
   - Update knowledge of engineering project design after the session.
   - Knowledge of engineering and technical specifications for various construction materials. In addition, how to formulate specifications.
   - Create and prepare students for the working life of engineering practice.
   - Acquire the ability to calculate the quantities of project engineering and measurement method.

5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Gaining cognitive with as regards all matters relating to types of engineering projects and project life cycle engineering.
   - Familiarity with matters relating to the types of engineering contracts and contractual relations between parties involved in construction.
   - Know the scientific basis for the selection of the contractor.
   - Knowledge of all matters relating to the work of the sizes of all engineering works.
   - Ability to calculate the required quantities for different works.

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Forth level

### 2nd term

---

1. Course number and name: **Landscape Architecture (BARE 4324)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4324** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Urban Planning (ARCH 4319) |
| Course Description | An introduction into the theory and practice of landscape architecture; explores a variety of themes that have their impact on how landscape architects have completed their design and on the manner in which these themes underpinning landscaping are translated into the physical environments. The course is by nature interactive, that is, it shows a combination of in-class lectures, hands-on projects, site visits and discussions, and a final project. |

4. **Course Objectives:**
   - Introduce to the students the field of landscaping architecture.
   - Lectures, reading and problem-solving exercises provide a basic overview of historical, philosophical and technical aspects of the profession of landscaping architecture;
   - Explore how landscape design, site environment and legislation might shape the design process and its outcome;
   - Learn about the fundamentals of landscape design. and how to draw graphic landscape plans necessary to communicate design ideas;
   - Learn about the techniques deemed essential to improve line quality, lettering, sketching, rendering and drawing layout.
   - Analyse surveying techniques and grading principles that are both integral tools to interpreting topographical information. Besides, this course content seeks understanding of natural and hardscape elements as well as landforms and design criteria.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Gain a depth understanding of gardening used in the past and design with nature used recently, in addition to scope, and cultural contributions of landscape architecture.
   - Produce of landscape project that effect built context socially and environmentally
   - Have a thorough knowledge of the process and products of landscape architecture, while helping the students to develop a critical thinking about contemporary issues accentuated in landscape architecture; and
   - Develop presentation, written reports, besides graphic representational skills.

1. Course number and name: **Architecture conservation (BARE 4326)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4326** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 4225) |
| Course Description | The course highlights general knowledge about architecture and urban conservation and different theories of architectural conservation, technical, socioeconomic and legal factors affecting the conservation of historic buildings and sites, Adaptive reuse of historic buildings. International charters concerning the conservation of historic buildings and sites, the process of conservation: documentation, survey, problem analysis, design, preservation techniques and maintenance. Also the course consists of series of lectures covering the architectural and urban conservation aspects and a project as a practical application on the conservation of a historic building and areas. |

4. **Course Objectives:**
   - Provide preliminary knowledge of architecture and urban conservation.
   - Introduce in details the aspects of architectural and area conservation: cultural, socioeconomic, technical, legal, building conservation, area conservation, documentation, maintenance and preservation works and others.
   - Introduce the students partly to the practical works done in building conservation.
   - Highlight conservation related institutions, local and international.

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Recognize, work on and share knowledge in the policies and strategies of architecture and urban conservation.
- Recognize and works on the techniques of architecture conservation.
- Plan, design and manage architecture conservation projects in all their stages: determination of goals, data collection and analysis, causes of decay, laboratory tests, structural stability, consolidation and all preservation and restoration works for different building elements.
- Analyze, discuss and criticize in the architecture and urban conservation issues.
- Share knowledge in the required research for the documentation of architectural heritage.

1. Course number and name: **Architecture Design Studio 4 (BARE 4428)**
2. Credits and contact hours (Credit. 4Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 4428** | 4 | 1 | 6 | 9 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (3) (BARE 4323) |
| Course Description | This course analysis the design of agricultural and industrial buildings at different levels such as design of small workshops and even heavy industries, agricultural buildings of various types, cattle farms, chicken, sheep and more. The course discusses the design principles and characteristics of these buildings and its relationship with the surrounding environment. The practical exercises consists of two projects: one master, taking into account the structural system of the building, and the other minor design standards are applied and design requirements for industrial and agricultural buildings. |

4. **Course Objectives:**
   - Give the students the ability to solve design problems.
   - Use of architectural and construction elements in a systematic and functional needs that sound scientific, aesthetic, structural and are well adopted to the design requirements.
   - Knowledge of patterns of public buildings, agricultural, industrial and special address types and methods in their design, with reference to the functional relationships between spaces and design requirements.
   - Familiarity with agricultural and industrial buildings grounds, in particular.

5. **Outcomes :**
   - Understand industrial and agriculture design process, standards and requirements
   - Gain cognitive with as regards architectural design methodology, starting with design and analysis of understanding the problem and offering solutions in the ceremony and a mechanism developed, up to the ways of different means of expression show.
   - Accomplish any design process via serial design process steps with regard to industrial or agricultural buildings.
   - Produce a number of architecture design projects efficiently.
   - Gain analytical skills through case studies that examine study and analyse case studies of similar projects that are required to design, especially in the field of agriculture and industry.
   - Enhance presentation and dissemination skills.
   - Improve teamwork skills.
   - Gain mental skills through organized thinking building on the sequence steps in thinking to reach conclusions and judgments logically.

1. Course number and name: **Housing Policy and Sustainable Design (BARC 4326)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 4326** | 3 | 1 | 2 | 3 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Urban Design (BARE 4327) |
| Course Description | This course defines the neighborhood basics planned, designed and residential styles. It studies housing architectural design relationships, factors, programs, and standards. The students can analyze elements of residential neighborhood with describing the types of housing in local, site analysis and blocks of housing.<br>The course, in addition, discusses the theoretical foundations in the distribution of blocks on the site, coordinate the movement paths along with the design of the entrances and exits to the site, taking into account the optical configuration and element of suspense in the coordination of urban spaces for the site, the concept of sustainability, as well as applications of sustainability criteria on neighboring residential dwelling unit, with in the description to the mechanism for implementing applications as well as their disadvantages. |

**4. Course Objectives:**

- Introduce basic principles about housing as a means of effective development.
- Identify problems and requirements of housing design from the physical, economic and social aspects.
- Resolve problems related to housing projects planning and residential areas.
- Understand the interrelationship among neighboring tenement design on the one hand, and on the other hand, proper planning
- Understanding of sustainability meaning, sustainability criteria and mechanism of its applications to design housing and neighborhood.

**5. Course Outcomes:**

- Enhance students' knowledge related to sustainable design for housing.
- Have knowledge in design pillars to coordinate site, order blocks of housing unit, design of urban spaces on site coordination and housing design strategies, such as housing and economic class.
- Acquire the design skills needed to give an idea of local and global housing projects, in terms of major foundations planned properly in line with the requirements of the urban environment and community groups.

## Architecture Specialization - Fifth level

### 1st term

1. Course number and name: **Contemporary Architecture and Urban Issues** (BARE 5229)
2. Credits and contact hours (2Credit. Hrs., Theory per Week )

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| BARE 5229 | 3 | 3 | 0 | 0 |

3. Course Information:

| Required/ Elective | Required |
|---|---|
| Prerequisites/Co-requisites | Theories of Architecture (BARE 3311) |
| Course Description | The course introduces the key developments occurred in architecture and urban planning to not only broaden their prospect but also strengthen their capabilities in expressing ideas, refining architectural and urban analyses, besides being able to communicate their concepts, defend their approaches while posing critiques. Also presents various studies of major trends to architecture and urbanism, while analyzing key aspects or concepts, besides philosophical foundations; analyses, and pose critiques to, the key ideas and current trends of contemporary architecture and urban planning, with an emphasis placed on characterization of different experiences that might be exercised by architects in their careers, in addition to the analytical study of the work of a number of global architects including architects Arabs and Palestinians. |

4. **Course Objectives:**
   - Increase students' awareness of contemporary urban and architectural issues.
   - Knowledge of the most important developments and trends in topics related to architecture and urbanism.
   - Capacity development in the field of analysis and criticism.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Cognitive regarding link and belonging to the profession by highlighting current variables and challenges associated with issues affecting architecture and urbanism.
   - Acquire the skill of mind through analysis and critique of architectural works and urban and architectural product in various fields.
   - Communicate with institutions and architects, to know the latest studies regarding the issues contemporary urban architecture.
   - Research skill acquisition through research in a topic related to architectural and urban issues.

1. Course number and name: **Architecture Design Studio 5 (BARC 5431)**
2. Credits and contact hours (4 Credit. Hrs., Theory per Week and 9hr. studios per Week )

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARC 5431** | 4 | 1 | 4 | 9 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architecture Design Studio 4 (BARE 4428) |
| Course Description | In this course discusses the complex buildings. The students express themselves visually and highlight their creativity. After presenting basic concepts in architectural design, this advanced course goes more deeply into the elements of artistic design, environmental design, architectural model making, civil engineering or 3D development. Also students are required to complete a major project of their own. |

4. **Course Objectives:**
   - Develop creative ideas and skills through visual arts, solving design problems, using sketching, line elements, value, shape, form, color, and texture
   - Develop presentation skills to show different methods used to present architectural designs to nontechnical personnel
   - Develop design considerations for effective solar orientation, efficient energy use, ergonomics, and ecological planning
   - Develop an overview of basic scientific modular principals upon which construction systems are based
   - Understand architectural careers and visual art application
   - Understand the significance of how historical and traditional designs are reflected in today's architectural designs
   - Develop research and teamwork skills

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Gain cognitive with as regards architectural design methodology
- Have analytical skills through case studies taught in design courses where they are studying and analysing case studies similar to projects that are required to design, especially in large projects and multiple functions.
- Produce a number of architecture design projects efficiently.
- Apply skills through discussions for each project by discussion committees from within and outside the department.
- Gain mental skills through organized thinking building
- Acquire national and humanitarian values by highlighting the heritage values in modern designs.

1. Course number and name: **Field Training 1 (BARE 5133)**
2. Credits and contact hours (1Credit. Hrs., Training outdoor)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 5133** | 1 | 0 | 1 | 12 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3313 and BARE 3318 |
| Course Description | This course is training students in the field of architectural design and supervision and implementation in an Office or engineering companies, according to the instructions issued by the Department Council. Field training for students under the supervision of instructor and student joined the Office for training, where the student through the Office working with the engineer supervisor Engineering Office projects in various buildings and sites in all stages of the construction of piling and building structure and stages until the final stages. |

4. **Course Objectives:**
   - Enable students to follow the different stages of construction, and impart practical experience through contact with the labour market.
   - Clarify the role and responsibilities of the job site supervision and construction methods.
   - Focus on developing a team spirit between the student and the supervisor.
   - Motivate students to pay attention to the proper orientation and training to make the most of the training.
   - Develop students ' ability to learn and self-reliance.
   - Build self-confidence of students.

5. **Course Outcomes :**
   - Acquire some practical skills and process related direct and indirect management and business skills on different architectural areas.
   - Provide fertile ground for entering the labour market.
   - Individual work skills and teamwork.
   - A report contain written and graphics data.
   - Learn what corporate workflow and engineering offices, advisory services and public and private actors involved.
   - Learn what corporate workflow and engineering offices, advisory services and relevant public and private bodies, competence, inform students on legal proceedings.
   - Acquiring cognitive skill to develop their abilities to perform role-play individually or within a team.

1. Course number and name: **Field Training 2 (BARE 5133)**
2. Credits and contact hours (1Credit. Hrs., Training outdoor)

| Course Code | Credits | Theoretical | Practical | Practical-R |
|---|---|---|---|---|
| **BARE 5133** | 1 | 0 | 1 | 12 |

3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3313 and BARE 3318 |
| Course Description | This course is training students to use and apply their knowledge. Along with practical applications, which seeks mainly to support the student information in appropriate practical applications of theoretical aspects, significant impact in the development and refinement of their intellectual and practical. Then Train the student to execute and oversee all stages finishes in architectural construction buildings and plaster and paint and the doors and Windows and marble and tiles and external cladding of stone and plaster and tile work and indoor and outdoor decorations. And focus on the practical application of the community and the institutions that students could work in the future as well as bridge the gap between theoretical and applied material. Also applied and practical skills necessary for a career in the future, so this course deals with the tasks of preparing qualified graduates able to rely on their own capacities in tender and construction and meet the needs of the labour market. |

4. **Course Objectives:**
   - Development student skill in information search and rating and raise her to prepare a report on field training.
   - Student application of knowledge and information obtained during academic studies in practice and see how their interdependence.
   - Target the practical skills to face the reality of the job by improving communication skills and dealing with staff training.
   - Target and improve the skill of regularity and precision and speed in completion of the works and how to deal with the problems actually work in the field.

5. **Course Outcomes :**
   - Acquire some practical skills and process related direct and indirect management and business skills on different architectural areas.
   - Provide fertile ground for entering the labour market.
   - Learn what corporate workflow and engineering offices, advisory services and public and private actors involved.
   - Learn what corporate workflow and engineering offices, advisory services and relevant public and private bodies, competence, inform students on legal proceedings.
   - Acquiring cognitive skill to develop their abilities to perform role-play individually or within a team.

جامعة فلسطين
UNIVERSITY OF PALESTINE

---

## Architecture Specialization - Fifth level

## 2nd term

---

## Concentration Requirement
## (Architecture Design)

---

1. Course number and name: **Introduction to Graduation Project (BARC 5201)**
2. Credits and contact hours (2 Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architectural Design (4) (BARE 4428) |
| Course Description | This course help the student to choose a dissertation topic in architecture. A research report about the importance of the chosen topic and its role in advancing scientific research in this field and its originality and design criteria for the chosen topic and research problem and select the project program .Also to study case studies, selection and analysis of the project site. |

4. **Course Objectives:**
   - Focus on one area of the different architecture Sciences.
   - Prepare preliminary studies and collect the information needed to design the project in course (graduation project – building).
   - Develop a program of graduation project and choose a location.
   - Rehabilitation of design capabilities through graduation project to cope with the aspirations of the labour market.
5. **Course Outcomes :**
   - Gaining cognitive with as regards the development of capacities in scientific research skills and assets.
   - Mastering the collection of information and materials for graduate work.
   - Choose project to specialize in Sciences and its various aspects.
   - Submission of proposals and preliminary studies for the project.
   - Knowledge of various scientific research methods and research skill.
   - Acquiring skills, and communication skills through field visits and analysis of case studies.

1. **Course number and name: Mechanical Installations (BARC 5203)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Building Construction (2) - Architecture (BARE 3318) |
| Course Description | The course Complementary to the construction of buildings 2, where he teaches the course of modern developments in the field of building systems and construction, and techniques developments in mechanical systems. The study of the buildings mechanical systems and requirements includes drainage systems, water supply, swimming pools, Heating Ventilation and Air-conditioning HVAC systems, elevators and escalators systems, fire alarm and firefighting. And architectural requirements for design systems. |

4. **Course Objectives:**
   - Understand modern technological ways in construction of buildings and applications
   - Knowledge of modern methods of mechanical systems.
   - Identify mechanisms of implementation and supervision
   - Understand the working drawings and architectural/mechanical details links to installation and construction and installation methods of different buildings types include design and execution drawings.
   - Understand and grasp and integration of the design process with the structural work and building materials
   - Understand the different mechanical systems and design in buildings.

5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Acquire specialized knowledge and modern construction systems and its various elements and mechanisms of implementation stages of construction and special finishes
   - Acquire the ability to deal with architectural details and translate them in reality.
   - Knowledge of the properties of construction materials engineering and physics and its applications.
   - The production a several execution drawings.
   - The production project
   - The acquisition of practical skills through visits and follow-up the construction of various projects.

1. Course number and name: **Construction Architecture Technology (BARC 5205)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Design of Concrete Structures - Architecture (BARE 3317) |
| Course Description | This course discuss modern technological methods for constructing buildings cover large surfaces by means of modern technology, modern building materials and methods of their implementation and application in buildings. Extrusion and cover large areas by means of different modern construction technology coverage. |

**4. Course Objectives:**

- Complete the student studied building construction systems in buildings 1 and 2 courses.
- Understanding of modern technological methods in the construction of buildings and their applications and methods of charting their own Executive.
- Improve capacities in architectural design for construction of buildings for large installations and means to cover them and constructed.

**5. Course Outcomes:**

The student upon completion of his study to this course is able to:

- Gaining skill checks to drawings of modern technology to create and read them properly.
- Acquire the ability to deal with architectural details and translate them into reality.
- Produce a number of drawings.
- Practical skill acquisition through visits to various construction projects.
- Specialized knowledge of modern construction systems and various components and mechanisms and private construction phases

1. Course number and name: **Graduation Project-Architecture (BARC 5302)**
2. Credits and contact hours (3 Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Introduction to Graduation Project (BARC 5201) |
| Course Description | This course is an extension of the student project. The main project developed during the course introduction to graduate which contains the concept, design developing, and project presentation that reflect high standards of academic quality and ability to articulate and professional guidance. The course also focuses on the physical, environmental, structural and other related issues. It provides project and shows the main architectural manifestation levels and form a Committee to discuss and assess the material that submitted. |

4. **Course Objectives:**
   - Complete the project chosen within the course Introduction to graduate.
   - Design solutions appropriate to the research problem identified in the search.
   - Highlight and test students' abilities in the field of architecture and studied for years of specialized study in Architecture Department.
   - Architectural and performance improvements linked to all aspects related to this performance of construction, environmental and other systems.
   - Improve the specialized knowledge of architectural design methodology, starting with design and analysis of understanding the problem and offering solutions, developed, and expressed in the various display where this knowledge is the cornerstone of majoring in architecture.
   - Develop design skills for any design process via serial design process steps.
5. **Course Outcomes :**

   **The student after his study of this course is able to:**

   - Complete work on graduation project chosen in the course Introduction to graduate.
   - Applied knowledge and skills through discussions for each project by committees from within and outside the Department.
   - Production project and presented in charts and pictures as well as a folder containing what staged at the front after the amendment on the charts and a folder as your system partition (3 copies).
   - Developing teamwork skills.
   - Acquiring national and humanitarian values by highlighting the heritage values in modern designs.
   - Capacity development in General is design.
   - Mental skills through organized thinking building on the sequence steps in thinking to reach conclusions and judgments logically.

1. Course number and name: **Design Architecture (6) (BARC 5304)**
2. Credits and contact hours (3 Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Architecture Design (5) (BARE 5431) |
| Course Description | This course is a studio in advanced architectural design skills relation to context and details field to develop student skills and his ability to design through deepening his technical ideas in a short time and specific, optometric technician integrated projects addressed issues of design in contemporary architecture and the impact of modern technology on design methodology with dealing with advanced digital design to form interfaces and the cover of the building. |

4. **Course Objectives:**

**This course aims at:**

- Understand modern technological methods in the design of buildings and their applications
- Examine the issue in contemporary architecture by analyzing key trends in architectural thought in the latter part of the twentieth century
- Integrated project design artistically address issues in contemporary architecture and the impact of modern technology on design methodology.

5. **Course Outcomes :**

**The student after his study of this course is able to:**

- Acquire the skill of dealing with modern technologies in architectural drawings and computer software.
- Understanding site design and built context effect to the architecture
- Design research skills through analysis conducted by students.
- The production project.
- Mental skills through organized thinking building on the sequence steps in thinking to reach conclusions and develop concept
- Teamwork skills.

1. Course number and name: **Energy Systems and Architecture (BARC 5208A)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 4321) |
| Course Description | This course is about Sustainable architecture that seeks to minimize the negative environmental impact of buildings by efficiency and moderation in the use of materials, energy, and development space and the ecosystem at large. Also discuss traditional and modern various for energy systems technologies and its applications in architecture such as solar, wind, geothermal, biomass design of buildings, improve Heating and Cooling Efficiency , and green buildings and international environmental rating system. |

**4. Course Objectives :**

- Understanding and awareness of the various traditional and modern systems of energy and its applications in architecture.
- Introducing the fundamental concepts of solar building design and energy systems.
- Through project based study and possible field visits, students will explore the theory, technologies, applications, and benefits of solar design of buildings and discover how to utilize solar energy systems for residential and public buildings.
- Students will be required to researchand complete a semester case study project in which they will examine various energy conservation aspects and economics underlying solar energy systems.
- Identify the last what has been reached of research and studies for solar energy systems and renewable energy and its applications in architecture.

**5. Course Outcomes :**

**The student after his study of this course are able to:**

- Cognitive skill acquisition, regarding the various energy systems and their applications in architecture.
- Awareness of environmental issues and the ability to handle and apply them in the design and planning.
- Practical skill acquisition through tests and applications of theories in practical examples.
- Produce a practical project.

1. **Course number and name: Buildings Legislations (BARC 5206A)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 4330 |
| Course Description | This course Introduce the students to the law, and what it is historical evolution and its public and private sources of obligation, regulatory authorities by law and construction regulations, building license infractions, objections, which have been applied in Palestine since the early twentieth century; Present the Palestinian organization structures planning system since 1996, And study the construction law applied in local municipalities, practice systems and the requirements shown in engineering maps and elicited to the engineers Union. |

4. **Course Objectives :**
   - Identify local building regulation laws that found in Palestine and its historical development.
   - Identify the powers of legislation and its implementing provisions of offences and licensing, together with select referential.
   - Have a good knowledge in the business and the maps in practice systems engineering engineers syndicate, in addition to the applicable of construction regulatory act in municipalities areas,
   - Have a good knowledge in building and licensing violations and/or objections in an attempt to examine both the provisions of the buildings and the Palestinian Organization Act of 1996.

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Understand general law and kinds and levels and properties, and good knowledge of applied buildings' construction systems in Palestine.
- Have depth of knowledge in local building regulations and construction laws.
- Understand the mechanism dealing laws and legislation process,with charts and various bodies and the regulatory process sequence.

1. **Course number and name: Facades and Roof Design (BARC 5206B)**
2. Credits and contact hours (2 Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 4428) |
| Course Description | **This course** introduce the students to the surface design techniques, the mechanisms and techniques of surface design using solar cells, green architecture, etc. And discuss what will the building look like? What type of building material, like stone, wood frame, or brick, will be used? They must also consider fenestration, or the placement and proportions of windows. |

4. **Course Objectives :**
    - Identify types of materials that cover the buildings and surfaces.
    - Identify the best of Surface design techniques.
    - Have a good knowledge surface design and facades.
    - Have a good knowledge in the outsidesof building shapes.
5. **Course Outcomes :**

    The student upon completion of his study to this course is able to:

    - Understand general surface design techniques in Palestine.
    - Have depth of knowledge in facades design.

1. **Course number and name: Advanced Computer Applications in Architecture (BIM) (BARC 5208C)**
2. Credits and contact hours (2 Credit. Hrs., lab per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | Computer Applications in Architecture (BARE 3216) |
| Course Description | This course covers the mechanism of application software for architecture and architectural design and architectural stereoscopic display. Also focus on learning how to use computer software in the design process by creating models, visualization and analysis of building design. And discuss advanced study to formulate a 3D model, and show design projects either architectural or interior designs using the latest software available |

4. **Course Objectives :**

**This course aims at:**

- Acquisition of student ability to use architectural BIM software shows (Revit).
- Develop the skills and capabilities to show third dimension architect, and those relating to design productivity.
- Improving the quality of architectural design and engineering work.
- Good understanding of the third dimension of architectural design through software applications.

5. **Course Outcomes :**

**The student after his study of this course is able to:**

- Acquire specialized knowledge of techniques and recipes BIM software architecture and how using them in the show.
- Enhance designer and site engineer communication methods
- Acquiring the ability to produce a number of architectural projects using BIM software in order to organize drawings and construction site.
- Gain practical knowledge in architecture software, especially those relating to the third dimension in architectural display..

1. **Course number and name: Principles Of Urban Sociology & Demography (BARC 5208B)**
2. Credits and contact hours (2Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Elective |
| Prerequisites/Co-requisites | (PLNC 5206A) |
| Course Description | This course discusses the importance of the study of the built environment, their social structure and fabric, as well as interest in the culture of human populations and their impact on urban design for different sites. And study and analysis of the psychological and social ideas that are affected by the relationship between the individual and the environment, and compare it with the local reality, the city as one social unit in itself in terms of its inception and growth and development based and function, and analysis of the problems arising from this growth and development. And the interrelationship between human behavior and the surrounding urban environment. |

4. **Course Objectives :**
   - Link building social communities that you design.
   - Understanding the built environment, their social structure and tissue culture of societies.
   - Understand the impact of the built environment on urban design.
   - Understand the psychological and social ideas that are affected by the relationship between the individual and the environment.
   - Understand the complexity in terms of city planning, being one social unit in itself in terms of its inception and growth and development construction and function, in terms of the problems arising from this growth and development.
   - Perception diagrams associated with architectural design, especially social, demographic and psychological.
5. **Course Outcomes :**

   **The student after his study of this course is able to:**

   - Gaining cognitive with as regards the components of the built environment and its impact on architectural design and planning.
   - Awareness of the social, demographic, and psychological aspects influencing the design and layout.
   - Research skills through research conducted by students.
   - Mental skills by linking social and demographic matters of design and planning.

## Concentration Requirement
## (Urban Planning)

1. **Course number and name: Graduation Project (BPLN 5302)**
2. Credits and contact hours (3Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BPLN 5201) |
| Course Description | This course prepares the students to work within the framework of planning/consulting relationship. Allow students to Design, develop and present the study to reflect high standards of academic quality, and ability to articulate and professional guidance. With focusing on the physical, environmental, structural and other related issues planning , and providing project and show the utmost architectural manifestation levels and offers with your search for the course Introduction to graduate, and form a Committee to discuss and assess the material submitted. |

4. **Course Objectives :**
   - Work on a case study format
   - Understand how a range of data and analytical methods contribute to the development of planning recommendations;
   - Communicate recommendations in planning verbally and in writing
   - Develop critical thinking and analytical skills from other planning courses into the development of practical recommendations
   - Recognize how planning policy and urban development are applied or developed
   - Work collaboratively within a team
   - Participate effectively in the planning and implementation of a consultaion project
   - Identify client's needs, project constraints, goals, and objective
5. **Course Outcomes :**

**The student after his study of this course is able to:**

- Demonstrate practical understanding of human settlements, the analytical, critical, and rhetorical skill necessary to make the professional-level contribution within an area of planning specialization
- ability to apply the professional code of ethics and equity to real-world planning problems and to contribute to productive collaborations with others.
- Enhance team works skills, and written and oral presentations skills.

1. **Course number and name: Introduction to Graduation Project (BPLN 5201)**
2. Credits and contact hours (2Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 4428 |
| Course Description | This course help the student to choose a dissertation topic in urban planning, including for example land use, urban revitalization, urban rehabilitation, urban renewal, urban regeneration, urban heritage or urban restoration. And introduce students to the practice of conducting original social, policy, and planning research in an urban context, and through a series of applied exercises, covering the research conceptualization and design, logic models, survey and ethnographic research, urban policy analysis and evaluation. The project provides an introduction to 1) census and economic data collection, processing, and its analysis; 2) surveys forecasting and modeling techniques in planning; 3) demonstrates the uses of real-time urban data and analytics; and 4) provides a socio-economic-political context for the smart cities movement, focusing on data ethics and governance .A study analysis about the importance of the chosen topic and its role in advancing scientific research in this field of urban planning, its originality and research design criteria. |

4. **Course Objectives :**
   - Focus on particular discipline chosen within the field of urban planning.
   - Enhance students' work within a team that involves working with clients on actual research problems and learn professional skills as well as practical ways of conducting usable research;
   - Acquaint students with the techniques of project feasibility using case studies; analysis of project proposals and overall project compatibility assessment.
   - Analyse case studies that will be based on a variety of public and private sector developments, in central city and suburb locations.
   - Teach students systematic approaches to collecting, analyzing, modeling, and interpreting quantitative data used to inform robust research, and, ultimately, urban planning practice and policymaking.
5. **Course Outcomes :**
   - Contribute to the urban studies major's objective of introducing students to "conceptual tools, analytical methods, and theoretical frameworks to understand urban environments.
   - Enhance team works skills, and written and oral presentations skills.
   - Built an architectural project program depend on a research problem in order to analysis, and solve engineering, global, economical, environment, or social problems.
   - Develop students' skill in research methods for planning.

1. **Course number and name: Urban Planning in Palestine (BPLN 5203)**
2. Credits and contact hours (2Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 4225) |
| Course Description | This course Study and analysis of change and evolve in systems, laws and the nature of the planning in Palestine through various historical periods , the most important features of previous planning systems concerned with land planning and urban planning (Ottoman, British mandate, the Egyptian and the Jordanian planning systems) showing the systems and profiles being utilized in shaping the nature and layout attributes of urban planning in Palestine. Also examine the reality of Palestinian planning and its management institutions at present, focusing on the role, responsibility and power players of those institutions. And describe the types of planning in Palestine, with a particular concern on housing. |

4. **Course Objectives :**
   - Link academic education with practical work, and cooperating with relevant institutions to qualify the students for competing with others at the labour market.
   - Provide opportunities for students to build their own capacity and strengthen their expertise by knowing the role and responsibility of the institutions involved in local government, for example.
   - Gain depth of knowledge in the key planning legislation concerned with land uses in the Ottoman and British mandate-era town planning and the applications of those laws in an era of national authority.
   - Perceive impediments to proper planning and a thorough understanding of the motivations and treatment planning.

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Acquire the necessary information to the knowledge base by working the applied in practical life.
- Gain a detailed picture of the powers and the role of institutions in planning and decision-making mechanism and formulate planning policies.
- Acquire knowledge about some important terms such as limiting construction, Ricochet, coupon detachment and non-secreting etc.

1. **Course number and name: Advanced Urban Planning Studio (PLNC 5305)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 3312) |
| Course Description | This course covers practice and the practical application of the concepts, skills, ways and methods of urban planning to urban and regional levels, and through realistic planning projects selected from the environment ,practical application of projects and layouts, with a focus on urban planning projects, linking different planning theories, strategies and practical mechanism for concrete projects,and configuration elements of the urban environment in terms of physical planning, the social and the economic planning. Also a brief study of the process of project planning process from the following areas: urban transformation, how to set up the rules and the law making process, taking into account regulatory schemes needed schema and planning institutions when dealing with outlines. |

4. **Course Objectives :**

- Understand the content of laws and apply them in outlines.
- Clarify the role and powers of the Department of planning institutions planning projects.
- Have knowledge in the advantages and constraints, the features and in theories of urban planning.
- Understand the meaning of physical level planning, social, and economic.
- Have knowledge in the types of chart to include, for example, urban slums, reviving old neighborhoods and historic preservation.
- Understand the most important policies occurred at the central and local levels of planning.
- Learn about the key planning strategies necessary to solve layout problems and excessive growth control mechanism, particularly on the urban fringe.

5. **Course Outcomes :**

The student upon completion of his study to this course is able to:

- Give the students a solid foundation that concerns dealing with planning projects on the practical side, thus enhancing the students' skills in planning.
- Be familiar with the key strategies in planning legislations.
- Well acknowledge the role and impact of planned establishment plan and use the latter to meet their concerns.
- Acquire a practical skill concerned with project management in planning.
- Have depth of knowledge in the concept, constraints, policies, and the requirements of urban planning branches.

1. **Course number and name: Developmental Regional Planning (BPLN 5304)**
2. Credits and contact hours (3Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3312 |
| Course Description | This course studies comprehensive theory basics as far as content and properties are concerned and address how to prepare some organizational and planning documents, such as comprehensive blueprint, land classification area scheme, with emphasis on the procedural steps and modelling and quantitative methods used in the planning process . Also addresses basic concepts that deals with environmental planning, environmental impact assessment and analysis, environmental pollution and how to control it, besides domestic legislation, and the most important environmental laws concerned with environment **.** And provides practical application of local and regional schemes evaluated in relation to effects and consequences of urban development that deems essential to solving problems caused by misuse and use of regional geographical area down to the balanced development and comprehensive **.**This course also covers spatially parallel kind of cooperation with the concerned your giving institutions. |

4. **Course Objectives :**
   - Introduce to the students the basic concepts of regional planning and spatial relations, geographical location, and their importance in solving the problems of the communities.
   - Address how to plan or organize special areas within the city, such as downtown, industrial, archaeological areas, agricultural and recreational areas.
   - Learn about new developments and also about the directions of development which are planned through a comprehensive view of development plans, as witnessed in the physical environment, through the optimization of natural resources, and the preservation of the natural environment,
   - Learn about all components of water, soil and air, and to mutual influences between them.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Depth of knowledge in the surrounding environment.
   - Provide a service to society, by discussing issues of environmental planning and regional realities in the study area, and identify problems afflicting urban areas to develop appropriate solutions.
   - Stimulate scientific research in the research concerned with environmental planning.
   - Acquire skills and define the techniques used in planning.
   - Acquire research report skill
   - Enhance the skill of teamwork.

1. Course number and name: **Urban Management and Development Theory (BPLN 5206B)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | - |
| Course Description | This course focuses on governance that its theory echoes a great significance in the context of urban development and management. And introduces the relevant legislation and institutions in urban governance as well as their fundamental democratic nature. The course is divided into five modules. The first module introduces the Indian legal system and the Constitutional foundations of urban local bodies. In this module the role of urban local bodies as democratic institutions and not merely as providers of urban services would be emphasized. The second module provides an overview of central and state legislation dealing with constitution, powers and functions of these bodies. The third module is an attempt to look at environmental laws especially in the context of urban issues. Laws relating to land and property rights are covered in the next module. In the last module, laws that provide for urban planning and institutions for urban planning and governance are discussed along with the reforms carried out. This course would act as a basis for the advanced course on regional planning. |

4. **Course Objectives :**
   - explain the importance of legislation and institutions in urban governance and the legal structure within which these institutions operate;
   - emphasize the democratic nature of these institutions and the need for enhanced citizen participation
   - Critically look at the urban environmental issues and the legal mechanisms to address these issues.

5. **Course Outcomes :**

   **The students will be able to:**

   - Appreciate the role of the laws, policies and institutions in the field of urban governance;
   - critically analyze the laws, policies and judicial decisions in a holistic perspective; and
   - Understand the need for reforms in urban governance and the steps taken in this direction.
   - Enhance communication skills either with students, tutors or local authorities.

1. **Course number and name: Environmental Planning (BPLN 5208A)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3312 |
| Course Description | This course examines trends in environmental planning and policy and the basic regulatory framework for environmental planning encountered. The emphasis of the course will be on regulating "residuals" as they affect three media: air, water, and land planning framed within the context of environmental concerns. Emphasis on diverse environmental impacts of land use change; environmental planning is the practice of urban planning framed within the context of environmental concerns. Emphasis throughout the course is placed on a diverse array of environmental impact assessments as the consequence of land use change. Hydrology, ecology, air quality, geology, and soils will be described within a planning context and framed within the concept of sustainable development. Technologies used to measure or assess the scientific disciplines described are described; and a comparison among the various technologies as to their relative effectiveness in different settings is provided. Heavy emphasis is placed on the juxtaposition of land uses and the potential effects of future land use change. |

4. **Course Objectives :**

- Enhance students' capability to connect science and technology to real-world problems by explaining how science relates to problems of societal concern; be able to distinguish between sound and unsound interpretations of scientific information; employ cogent reasoning methods in their own examinations of problems and issues; and understand the applications of science and technology in societal context.
- Provide a description of the history of environmental planning and its origins.
- Provide a knowledge base for how environmental impact assessments may be made at a regional scale, larger than site planning scale.

5. **Course Outcomes:**

- Describe an environmental system along with an understanding of how an environmental impact assessment may be conducted.
- Convey through written work an argument on how to assess environmental resources using scientific information and technology with an element of human interaction important to society at large.
- Demonstrate, through test essay response, an understanding of the linkage among policy practices and environmental consequences using methods accepted by the scientific community.
- Familiarize students with current up to date environmental planning and policy practices within an urban context.

1. **Course number and name: Planning Legislation (BPLN 5206A)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Elective |
| Prerequisites/Co-requisites | (BARE 4330) |
| Course Description | This course we examines legal issues related to land use control that is exercised by local government, examines an array of legal issues related to local governmental land use regulations**.** Also focusing on the authority of government to impact the uses and utility of land because government is broadly charged with balancing the individual's rights and interests in land with that of the "public interest and need.". The concern in this course is on municipal government that has been given the responsibility of carrying out this function, and does so in the context of local values, preferences, and sensibilities. Local government is the public custodian of community character and typically seeks to maintain that character within constitutional limits. But, given the social, economic, and political implications of land use, local governments are continually testing the constitutional limits of their power to control land uses. And how planners to understand the constitutional dimensions and limitation of local authority with respect to regulating land. |

4. **Course Objectives :**
   - Introduce students to important issues and key constitutional concepts within the area of land use law
   - Provide students with an understanding of the essential legal precepts in the administration of land use.
   - Help students begin to think more concretely and systematically about the impact that land use authority has had and can have on the shaping of community life.
   - Provide students with a framework for assessing the legal and ethical considerations related to governmental exercise of land use authority.
5. **Course Outcomes :**

   The student upon completion of his study to this course is able to:

   - Understand the role of planning law within a society;
   - Have a depth of knowledge in constitutional basis for zoning and its evolution
   - depth of knowledge in land use control, the changes occurred in comprehensive plan,the comprehensive plan as law, base zoning, zoning administration, performance zoning and subdivision regulations;
   - Enhance students' knowledge about how governmental structure responsible for planning is organized for each of the municipal form
   - understand the emergence of Local Government Zoning

## Concentration Requirement
## (Interior Design)

1. Course number and name: **Introduction to Graduation Project (BINT 5201)**
2. Credits and contact hours (2 Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | (BARE 4428) |
| Course Description | This course help the student to choose a dissertation topic in architecture. Also a research report about the importance of the chosen topic and its role in advancing scientific research in this field and its originality and design criteria for the chosen topic and research problem and select the project program. Along with study case studies, selection and analysis of the project site. |

4. **Course Objectives :**
    - Focus on one area of the different architecture Sciences.
    - Prepare preliminary studies and collect the information needed to design the project in course (graduation project – building).
    - Develop a program of graduation project and choose a location.
    - Rehabilitation of design capabilities through graduation project to cope with the aspirations of the labour market.
5. **Course Outcomes :**

**The student after his study of this course is able to:**

- Gaining cognitive with as regards the development of capacities in scientific research skills and assets.
- Submission of proposals and preliminary studies for the project.
- Mastering the collection of information and materials for graduate work.
- Acquiring skills, and communication skills through field visits and analysis of case studies.
- Choose project to specialize in Sciences and its various aspects.
- Knowledge of various scientific research methods and research skill.

1. Course number and name: **Graduation Project (BINT 5302)**
2. Credits and contact hours (3 Credit. Hrs., studio per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BINT 5201 |
| Course Description | This course is an extension of the student project, which developed during the course Introduction to graduate. The course highlight design, develop and present the project to reflect high standards of academic quality, and ability to articulate and professional guidance. Also Focuses on the physical, environmental, structural and other related issues. And providing project and show the utmost architectural manifestation levels and offers with your search for the course Introduction to graduate, and form a Committee to discuss and assess the material submitted. |

**4. Course Objectives :**

- Complete the project chosen within the course Introduction to graduate.
- Design solutions appropriate to the research problem identified in the search.
- Highlight and test students' abilities in the field of architecture and studied for years of specialized study in Architecture Department.
- Architectural and performance improvements linked to all aspects related to this performance of construction, environmental and other systems.
- Improve the specialized knowledge of architectural design methodology, starting with design and analysis of understanding the problem and offering solutions, developed, and expressed in the various display where this knowledge is the cornerstone of majoring in architecture.
- Develop design skills for any design process via serial design process steps

**5. Course Outcomes :**

**The student after his study of this course is able to:**

- Complete work on graduation project chosen in the course Introduction to graduate.
- Applied knowledge and skills through discussions for each project by committees from within and outside the Department.
- Capacity development in General is design.
- Production project and presented in charts and pictures as well as a folder containing what staged at the front after the amendment on the charts and a folder as your system partition (3 copies).
- Mental skills through organized thinking building on the sequence steps in thinking to reach conclusions and judgments logically.
- Acquiring national and humanitarian values by highlighting the heritage values in modern designs.

1. Course number and name: **Palestinian and Islamic Ornaments and Arts (INTC 5203)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BINT 5203 |
| Course Description | This course covers the principles of general decoration, especially Islamic and their development through the ages, various materials and methods to implement these ornaments and multiple styles of plastic units . And an analytical study of the initial elements, so that they can be used in a modern style away from the traditional method transferred in the processors with the application of decorative elements using multi-glass materials, ceramic, marble, wood and the practice of marketing the idea through the final presentation of the project. |

4. **Course Objectives :**
   - Understand the methods of performing arts in general
   - Focus on techniques using motifs in cosmetic work so as to give the student the ability to choose the appropriate technical units
   - Select materials that serve the goals and design objectives with material impact on quality.
   - Learn about drawing methods on glass and making ceramic formations, digging on wood and making multiple decorations on marble.

5. **Course Outcomes**

**The student after his study of this course are able to:**

- Acquisition of cognitive skill concerning principles of illumination and its various components and its evolution through the ages
- Acquire the skill of using different materials to implement these ornaments and various styles of plastic units
- Proper selection of the type and application of modern style decoration suited to the spirit of modernity
- Acquire the ability to deal with different materials to serve the architectural details and translate them into reality
- Gain practical skill in the production of various decorative forms.

1. Course number and name: **Advanced Interior Design 1 (BINT 5205)**
2. Credits and contact hours (3 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3314 |
| Course Description | This course covers the key issues for interior design: interior design concept, profession, internal spaces design elements for decorating the interior spaces, past and current work of architects and designers, lighting and color theory, color schemes and their interaction, and choose the color for interior design. This course includes an assessment of the internal vacuum is familiar to students and an analysis of its internal spaces, identify problems and proposed solutions. |

**4. Course Objectives:**

**This course aims at:**

- Identify internal voids and design fundamentals related considerations in terms of color and lighting, ventilation and building materials. Etc
- Training on designing furniture and meet their own standards
- Identify the output mechanisms and showing your interior design projects
- Identify the decorative elements in architectural spaces and foundations of applied
- Solving optimal internal voids.

**5. Course Outcomes :**

The student upon completion of his study to this course is able to:

- Knowledge of the bases and criteria for the design of interior spaces, movement and the choice of materials and colors, etc
- Analytical skills by studying examples and case studies.
- Produce a project in the field of interior design.
- Acquire the skill of mind through organized thinking to reach solutions to the design problem.

1. Course number and name: **Advanced Interior Design II (Furniture Design) (INTC 5304)**
2. Credits and contact hours (3 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Required |
| Prerequisites/Co-requisites | BARE 3314 |
| Course Description | **This course** studies recent trends in interior design and spatial configuration (inner) of buildings and its technical, environmental and psychological activities, the skills to use structural elements and decoration in the interior space to serve a function efficiently and furniture design is appropriate for this vacuum. Also focuses on the interior design of public buildings. |

4. **Course Objectives:**
   - Identify the different types of finishes and characteristics, and how to use it in internal spaces
   - Examining the different environmental, social and economic factors influencing internal spaces.
   - Develop students ' abilities to understand the details of walls, floors and other building elements and specifications for the materials used.
   - Develop students ' abilities to show internal designs in a specialized manner.

5. **Course Outcomes :**

**The student after his study of this course is able to**

- Acquire knowledge and awareness of the functional relationships between the various components of the space.
- Knowledge of the materials used in the finishes, whether floors, walls, interior ceilings and other building elements.
- Design of interior spaces for public buildings.
- Specialized knowledge of the internal design methodology, starting with the understanding, analysis and development of solutions, and their articulation with different means of demonstration.
- Acquisition of analytical skills through student study cases.
- Acquisition of communication skills with managers and users of public buildings and suppliers of interior design materials.
- Acquisition of practical skills through discussions for each project by committees within and outside the department.

1. **Course number and name: Special Topics in Interior Design (BINT 5208A)**
2. Credits and contact hours (2 Credit. Hrs., Theory per Week and studio)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Elective |

| | |
|---|---|
| Prerequisites/Co-requisites | BARE 4428 |
| Course Description | This course is an advanced stage in interior design, where cares about aspects of lighting design, color and ventilation. Consists of three parts, each part is in the study of theoretical aspects and design criteria and requirements followed by practical application through small project, in which interior design study for the application of theoretical aspects. Also it discuss the study for calculating light and status as well as its relationship with the use of the space to be design , the characteristics of raw materials and their relationship to the color and its impact on use. And take account of sustainable design in interior design in terms of passive ventilation and air routes investigation mechanism to empty in proportion to the space. |

4. **Course Objectives:**
    - Increase as q interior design through beautiful design and comfortable space and link for example in optical design and precise voice.
    - Good understanding of the basic effects of theory and practice, such as color, lighting and ventilation in design of indoor space.
    - Build and improve interior design skills.

5. **Course Outcomes:**

**The student after his study of this course is able to:**

- Advanced Knowledge and skill acquisition in interior design.
- Advanced cognitive skill acquisition, internal special design factors as well as the theoretical concept of design.
- Analytical skills through applied projects during the ceremony.
- Produce three small projects as course description.
- Perform calculations for internal vacuum components.
- Teamwork tasks to enhance communications skills.
- Gain practical skill in designing special procedure so as improve design performance.

1. **Course number and name: Photography and Digital Imaging (BINT 5208B)**
2. Credits and contact hours (2 Credit. Hrs., lab per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Elective |
| Prerequisites/Co-requisites | - |

| | |
|---|---|
| Course Description | This course covers Understanding development in fine art, photography course aim in theoretical and technical aspects in artistic and aesthetic levels. student during the course, the technical training (use professional cameras, including information about using different lenses and special effects offered by filters, filters and techniques to develop and print manual) and informed by another student with a general cultural and historical information. Therefore, this course deals with the different techniques of practical application for processing digital images of various types, used in graphic design and interior design. |

**4. Course Objectives:**

- Learn new ways to develop artistic visions and develop digital photography skills, during different stages from imagining the photo until final image.
- Learn new ways to document and present projects.

**5. Course Outcomes :**

**The student after his study of this course is able to:**

- Developing his skill on the first scenario where a photographer artist who could imagine in his mind the final form.
- Develop technical operations and consolidation of a number of images in an artistic way.
- Develop photography techniques and methods for presentation.
- Enhance life-long photography skills
- Using image processing software to configure a new image.

**1.** Course number and name: **Advanced Computer Applications in Architecture (BIM) (BINT 5206A)**

2. Credits and contact hours (2 Credit. Hrs., Theory per Week)
3. Course Information:

| | |
|---|---|
| Required/ Elective | Elective |
| Prerequisites/Co-requisites | BARE 3216 |

| | |
|---|---|
| Course Description | This course studies mechanism of application software for architecture and architectural design and architectural stereoscopic display. Also focusing on learning how to use computer software in the design process by creating models, visualization and analysis of building design. Along with advanced study to formulate a 3D model, and show design projects either architectural or interior designs using the latest software available |

**4. Course Objectives:**

- Acquisition of student ability to use architectural BIM software shows (Revit).
- Develop the skills and capabilities to show third dimension architect, and those relating to design productivity.
- Improving the quality of architectural design and engineering work.
- Good understanding of the third dimension of architectural design through software applications.

**5. Course Outcomes :**

**The student after his study of this course is able to:**

- Acquire specialized knowledge of techniques and recipes BIM software architecture and how using them in the show.
- Enhance designer and site engineer communication methods
- Acquiring the ability to produce a number of architecture and interior projects using BIM software in order to organize drawings and construction site.
- Gain practical knowledge in interior/architecture software, especially those relating to the third dimension in architectural display.