## 1- Course Data :

| Course Code:<br><br>AE 113 | Course Title:<br>**Free-hand and Color theory**<br>الرسم النظري ونظرية الالوان | Academic Year / Level:<br><br>First year |
|---|---|---|

| Specialization: | Number of Instructional Units: | | |
|---|---|---|---|
| Architecture Engineering | Lectures: | Tutorials:: | Practical:: |
| | - | 4 hrs./week | - |
| | Social and Human Sciences | General Specialization Requirements | |

## 2- Course Objectives :

**The main objective of this course is to:**
- The development of technical and aesthetic treatments in the process of architectural design
- Recognizing the elements of form as the main tool of the designer.
- Understand the proportions and relative relations of surfaces and figures
- Developing hand-free drawing of pictures and figures
- Recognize the function of color in architectural design.

## 3- Intended Learning Outcome :

**After completing this course, the student should be able to:**
- Mastering drawing skills without using engineering tools.
- Enhances his ability to use free drawing to show the architectural ideas of natural elements, geometric shapes and architectural configurations with pencils and charcoal pencil.
- Uses auxiliary techniques such as the use of colors and other architectural methods of output.

## 4- Course Content :

| Week 1 | Introduction, theoretical background of graphics (free hand drawings) |
|---|---|
| Week 2-3 | Study the foundations of visual design |
| Week 4-5 | Major issues related to primary engineering drawings. |
| Week 6-7 | Figure studies. Regular and irregular shape |
| Week 8 | Convert Shape. |
| Week 9 | Midterm exam |
| Week 10 | Color theories |
| Week 11-12 | Color properties and graphics produced with colors. |
| Week 13-14 | Advanced techniques in architectural production and use of colors |
| Week 1-15 | Oral exam |
| | Final exam |

## 5- *Teaching and Learning Methods :*

**Reliance on:**
 - Exercises / Sketches - Projects - Teamwork - Learning by discovery - learning by playing

## 6- *Student Assessments :*

| Used procedure | Weight |
|---|---|
| a.  Trainings / Projects/ Reports | 30 % |
| b.  Mid-Term Exam | 20 % |
| c.  Final Exam | 50 % |
| Total weight | 100 % |

## 7- *Exercises:*

-   How to convert theoretical ideas into geometric drawings.
-   Apply to the initial elements of the drawing (point and line)
-   Applied to shape studies (size, color, texture, location and orientation)
-   Relationship of visual ratios between shape and space
-   Applications on architectural vacuum properties
-   Applications use lead and coal cans in the drawing
-   Applications on the use of colors and their characteristics

## 8- *hours of detailed student work:*

| Class work | 4 |
|---|---|
| Home work | 3 |
| Total SWL | 7 |

## 9- *List of References*:

-   Course notes
-   Ching ,F. D. K. : Architecture: Form, Space and Order., john Wiley and sons , New York , 1996.
-   Thomas Young -Pencil Sketching – wiely book -1971
-   Betty Edwards - Color: A Course in Mastering the Art of Mixing Colors Paperback – September 23, 2004