



**University/Academy:** Arab Academy for Science, Technology & Maritime Transport  
**Faculty/Institute:** College of Engineering & Technology  
**Program:** B.Sc. Architectural Engineering and Environmental Design

### Form no. (12): Course Specification

#### 1- Course Data

Course Code: <b>AR 114</b>	Course Title: <b>Visual Studies 2 (Theory of Colours)</b>	Academic Year/Level: <b>1<sup>st</sup> year / 2<sup>nd</sup> semester</b>
Specialization: <b>Architecture</b>	No. of Instructional Units Credit <b>3</b> Lecture <b>2</b> Tutorial <b>4</b>	Prerequisite <b>None</b>

#### 2- Course Aim

This course intends to teach principles underpinning the theories of color, providing knowledge and skills in the field of visual communication and representation. An Introduction to study techniques and methods of forming color schemes for interior designs through using Adobe Photoshop Program is included in the course. Students learn how to identify varying color schemes and present drawings displaying an awareness of visual properties.

**The course aims to:**

- Emphasize an understanding of the factors of visual perception and vision systems; the nature of colors and the optical system; and color properties including hue, value and saturation.
- Enhance the student's practical skills to develop the awareness of the theory of color organization (Faber, Munsell and Chevreul organization) and principles of color schemes: chromatic harmony, Monochromatic harmony, triadic harmony and complementary harmony.

#### 3- Intended Learning Outcomes

<b>a- Knowledge and Understanding</b>	<b>Through knowledge and understanding, students will be able to:</b> <ul style="list-style-type: none"> <li>• Define the fundamentals of color properties and organization.</li> <li>• Use different color presentation techniques and use of color rendering in architectural drawings.</li> <li>• Express visualization, communication &amp; representation of architectural spaces (internal and external spaces) based on defined principles.</li> </ul>
<b>b- Intellectual Skills</b>	<b>Through intellectual skills, students will be able to:</b> <ul style="list-style-type: none"> <li>• Apply color theories and their effect on the processes and delivery of design.</li> <li>• Innovate presentation of ideas, concepts and architectural drawings</li> </ul>
<b>c- Professional Skills</b>	<b>Through professional and practical skills, students will be able to:</b> <ul style="list-style-type: none"> <li>• Create architectural drawings based on various coloring techniques with high quality.</li> <li>• Present and communicate their conceptual and final architectural ideas.</li> </ul>
<b>d- General Skills</b>	<b>Through general and transferable skills, students will be able to:</b> <ul style="list-style-type: none"> <li>• Work coherently and successfully as a part of a team in projects, assignments, etc.</li> <li>• Independently seek knowledge, set aims, targets, objectives and plan to meet them with a deadline (time management).</li> <li>• Adopt an open-minded approach in the appraisal of design issues, requirements and opportunities.</li> <li>• Listen and critically respond to the views of others.</li> <li>• Transfer techniques and solutions from one field of architecture to another.</li> </ul>

#### 4- Course Content

- Week No.1** Introduction to aesthetic science and colors.
- Week No.2** Light and physical vision factors.  
- Eyesight perception.  
- Eyesight and perception of form, distance and movement.  
- Eyesight and perception of color.
- Week No.3** Color qualities (color dimension).  
White, black and gray.
- Week No.4** Lighting colors. Pigment colors.
- Week No.5** Color ordering.
- Week No.6** Color ordering.
- Week No.7** Continuation of the previous lecture and evaluation.
- Week No.8** Color wheel (color circle): Rood wheel and Chevreul wheel.
- Week No.9** Complementary and split complementary
- Week No.10** Harmony of colors.
- Week No.11** Harmony of colors.
- Week No.12** Continuation of the previous lecture and evaluation.  
Color and visual perception.  
Psychological effects of color.
- Week No.13** Outdoor color.
- Week No.14** Color and interior design – Introduction to techniques and methods of forming color schemes for interior designs through using Adobe Photoshop Program.
- Week No.15** Color and interior design - Introduction to techniques and methods of forming color schemes for interior designs through using Adobe Photoshop Program.

#### 5- Teaching and Learning Methods

The course comprises a combination of:  
Lectures, studio project work, and Team work project.

## 6-Teaching and Learning Methods for Students with Special Needs

- Consulting with lecturer during office hours.
- Consulting with teaching assistant during office hours.
- Private sessions for redelivering the lecture contents.
- For handicapped accessibility, please refer to program specification.

## 7- Student Assessment

Students must present the list of weekly assignments shown in the table below.

Students have to present a portfolio during the final jury which will demonstrate the learning outcomes throughout the academic semester, and a selection of previous phases of the projects in appropriate form of documentation and presentation. Methods of documentation may include drawings, photographic material, multi-media material, quantitative and qualitative data, 3D models or prototypes and web-based material. All presented materials and work should be recorded in graphic form and explained for assessment purposes.

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	Assignment	Knowledge and understanding	1	6	20%
2	Written exam.	Knowledge and understanding		7	10%
3	Assignment	Knowledge and understanding	8	13	20%
4	Written exam.	Knowledge and intellectual skills		12	10%
5	Teamwork project	All skills	4	8	15%
6	Portfolio exam.	All skills	4	9	5%
7	Written exam.	Knowledge and intellectual skills		16	20%
<b>Total</b>					100%

## 8- List of References:

<b>a- Course Notes</b>	N/A
<b>b- Required Books (Textbooks)</b>	<ul style="list-style-type: none"> <li>• MILLER, Mary, <i>Color for Interior Architecture</i>, N. Y.: John Wiley &amp; Sons.</li> </ul>
<b>c- Recommended Books</b>	<ul style="list-style-type: none"> <li>• AMBROSE, Harris, <i>Color: In the Sensation Produced by Rays of Light</i>, Lausanne, AVA Publishing, 2005.</li> <li>• CHEN, John, S. M., <i>Architecture in Color Drawings</i>, McGraw-Hill, 1996.</li> <li>• DONG, Wei, <i>Color Rendering</i>, McGraw-Hill, New York, 1997.</li> <li>• GRANT-HAYS, Brenda, <i>Color in Small Spaces</i>, London: McGraw-Hill, 2003.</li> <li>• JACKSON, Paul, C., <i>Painting Spectacular: Light Effects in Water Color</i>, Cincinnati: North Light Books, 2000.</li> <li>• McCAULEY, Mark, <i>Color Therapy at Home</i>, Massachusetts, Rockport, 2004.</li> <li>• OJEDA, Oscar Riera, <i>Colors- Architecture in Detail</i>, Massachusetts, Rockport, 2004.</li> <li>• PILE, John, <i>Color In Interior Design</i>, McGraw-Hill, New York, 1997.</li> <li>• POORE, Jonathan, <i>Interior Color by Design</i>, Rockport Publishers, Massachusetts, 1994.</li> <li>• PORTER, Tom, GOODMAN, Sue, <i>Manual of Graphic Techniques 4</i>, Architectural Press, 1998.</li> <li>• SCHLEIFER, Simanek, <i>500 Color Ideas for Small Spaces</i>, Koln: Taschen, 2007.</li> </ul>
<b>d- Periodicals, Web Sites, etc.</b>	N/A