

MATERIALS AND CONSTRUCTION

3.21.2017

WITH STUDENT LEARNING OUTCOMES

Materials and Construction (ID217, 3 credits)

Course Description:

An introduction to the structural principles and construction methods of buildings. The students will understand how buildings work from a structural and materials objective to enable actualization of an interior design project. Interiors structure and construction are examined, and students begin their first technical drawings of interior construction elements. The construction process and the professions involved are studied. The course examines the functional and aesthetic properties of specific interior finishes and materials that are available to the designer. Through projects and research, students examine the parameters of material selection for a space with particular focus on sustainability and “green” spaces.

Prerequisite: Drawing for Interior Design

Students will:

1. Demonstrate knowledge of building systems, materials and finishes for application to interior design projects. (PC 3,4)
2. Apply techniques for communicating technical information through drafting, schedules and model making. (PC 4)
3. Demonstrate knowledge of how buildings function as part of ecological system and apply principles of sustainability. (PC 3)
4. Demonstrate basic knowledge of building codes, professional practice, and principles of universal design. (PC 3)

Required Texts:

- Allen, Edward, How Buildings Work. 3rd Edition. Oxford Press. New York. 2005.
ISBN-10: 0-19-516198-X (\$26)
- Ching, Francis DK, Building Construction Illustrated. 5th Edition. John Wiley and Sons. Hoboken NJ. 2008.
ISBN-10:978-0-470-08781-7 (\$34)
- Phyllis Sloan Allen, Miriam F. Stimpson, Lynn M. Jones. Beginnings of Interior Environments, 10th Edition, New York, 2008.
ISBN-10 013500814X (\$85)
- William McDonough and Michael Braunart. Cradle to Cradle- Remaking the Way We Make Things.
ISBN: 978-0865475878 (\$11.49)

Supplementary Readings:

- Ching and Winkel, Building Codes Illustrated. John Wiley and Sons. 4th ed. Hoboken NJ. 2012.
ISBN-10: 0470903570 (\$37)

Supplies: Supplies are the same as Drawing for ID.

- drafting table (at least 30” wide) for home use (\$50)
- roll of good quality drafting vellum 30” wide (1000H or equivalent) (\$20)

- 18" roll of inexpensive trace (\$5)
- mechanical lead holder or drawing pencils with F, H, 2H, 4H leads (\$8)
- sharpener for lead holder or pencils (\$7)
- white eraser (\$2)
- erasing shield (\$3)
- 36" T square (\$18)
- 30X60 triangle and 45X45 triangle (at least 10" long) (\$12)
- architects scale (\$8)
- drafting tape (\$5)
- dust brush (\$6)
- utility or exacto knife with blades (\$10)
- metal straight edge 24" minimum (\$9)
- adjustable triangle (\$12)
- set of about 20 color pencils: Prismacolor or equivalent with some primaries, secondaries and some neutrals (\$25)
- TOTAL= \$200

Supplemental Supplies: There are no supplementary supplies for this course.