+ Director of Liberal Studies (where applicable)

Department Curriculum Committee

College Curriculum Committee

Provost (where applicable)

College Dean

**Catalog Description** 

ID 313 Materials and Finishes

(3c-0l-3sh)

Prerequisite: FM 314

An introduction to the modern and historic use and maintenance of materials in architecture, construction, and interior design and the codes and costs that govern their use today. Consideration is given to contemporary methods of harvesting, preparation, and manufacture of building materials and the evaluation of the impact of these processes on the environment.

### Syllabus of Record

#### I. CATALOG DESCRIPTION

ID 313 Materials and Finishes

3 credits
3 lecture hours
0 lab hours
(3c-0l-3sh)

Prerequisite: FM 314

An introduction to the modern and historic use and maintenance of materials in architecture, construction, and interior design and the codes and costs that govern their use today. Consideration is given to contemporary methods of harvesting, preparation, and manufacture of building materials and the evaluation of the impact of these processes on the environment.

#### II. COURSE OBJECTIVES

Upon completion of the course, the student will be able to:

- 1) classify the use of the principal materials of architecture and interior design in history.
- 2) utilize the various applications of the principal materials in the modern construction and design industries.
- 3) identify and apply the legislation, codes, regulations, standards, and specifications that govern the use of the principal materials in interior design.
- 4) recognize preservation techniques in the re-use of existing building and decorative materials.
- 5) demonstrate an understanding of the economic consequences of specifying certain materials.
- 6) write specifications and estimates and measure quantities of the principal materials.
- 7) recognize the proper training and use of craftspeople and contractors in the working and installation of the principal materials.
- 8) establish competency in evaluating the impact of the preparation processes of certain materials upon the environment.
- 9) develop awareness of resource sustainability.
- 10) demonstrate an understanding of the responsibility of designers to specify materials ethically.

# III. Course outline:

# WEEK ONE:

a Introduction: Rights and wrongs in the use of materials. (1 1/2 hours)

b The place of materials in the history of architecture and interior design, as related to contemporary uses.

"(1 1/2 hours)

#### WEEK TWO:

a&b Timber: species; growth and preparation; physical characteristics; structural and decorative uses; codes & standards; maintenance.

(3 hours)

#### WEEK THREE:

a&b Masonry: types; evolution quarrying and manufacture; physical characteristics; structural and decorative uses; codes and standards; maintenance.

(3 hours)

#### WEEK FOUR:

a&b Brick and tile: types;
manufacture; physical characteristics;
structural and decorative uses;
codes and standards;
maintenance. (3 hours)

# WEEK FIVE:

a&b Concrete: composition and production, physical characteristics, structural and decorative uses; finishes and textures; codes and standards; maintenance. (3 hours)

#### WEEK SIX:

a Reviewing for mid-term exam.

(1 1/2 hours)

b Mid-term exam

 $(1 \ 1/2)$ hours)

#### WEEK SEVEN:

a&b Paint: types; preparation and manufacture; physical characteristics: structural and decorative uses; codes and standards: maintenance.

hours)

#### WEEK EIGHT:

a&b Metals: types; composition and manufacture; physical characteristics: structural and decorative uses: codes and standards: maintenance.

hours)

#### WEEK NINE:

a&b Modern synthetics: principal types and manufacture; physical characteristics; structural and decorative uses: codes and standards: maintenance. (3 hours)

#### WEEK TEN:

a&b Textiles: Definitions and distinctions between other fiber based products such as carpet; principal types; history and manufacture; physical characteristics; uses; codes and standards; regulations (including flammability and durability) and recommendations: maintenance. (3 hours)

# -WEEK ELEVEN:

a&b Wallpaper: historical origins; types; manufacture; maintenance and preservation codes and standards.

(3 hours)

#### **WEEK TWELVE:**

a&b Plaster: types; composition and preparation; physical characteristics; uses; codes and standards; maintenance. (3 hours)

## WEEK THIRTEEN:

Ta&b Glass: types; composition and manufacture; physical characteristics; structural and decorative uses; codes and standards; maintenance. (3 hours)

#### **WEEK FOURTEEN:**

a&b Ceramics: types; preparation and manufacture; physical characteristics; uses; codes and standards; maintenance. (3 hours)

# TOTAL 42 HOURS

# IV. Evaluation methods:

3 essays, 1500 words - 100 points each
2 graphic assignments - 100 points each
2 in-class tests - 50 points each
Mid-term exam
Final exam

300 points
200 points
200 points
200 points

\_\_\_\_\_\_1000 points

#### **GRADING SCALE:**

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 59% and below

- V. Required textbooks, supplemental books, and readings:

  Textbook: Riggs, J. R. (1996). Materials and components of interior

  architecture. New Jersey: Prentice Hall
- VI. Special resource requirements:

  Mechanical pencil, 0.5 mm.

  Pocket magnifying glass.

  18"x24" sketchbook, cartridge paper, preferably re-cycled.

  5"x9" sketchbook, cartridge paper, preferably re-cycled.
- VII. Bibliography:
  American Association of Textile Chemis
- American Association of Textile Chemists and Colorists (AATCC), <u>Technical manual</u>
- American Society for Testing and Materials (ASTM), <u>Annual book of</u> <u>standards.</u>
- Counsell, S. (1990). The good wood guide. London: Friends of the Earth.
- Gilliat, M. (1990). Period decorating. London: Conran Octopus.
- Govmark Organization Inc., <u>The Govmark book on flammability</u>
  <u>test methods of textiles, plastics, and other materials</u>
  <u>used in home and contract furnishings.</u>
- Merkel, R. (1991). <u>Textile product serviceability. New York:</u> Macmillan.
- Reznikoff, S.C. (1989). <u>Specifications for commercial interiors.</u> New York: Whitney.
- Schoeser, M. and Rufey, C. (1989). <u>English and American textiles from 1790 to the present.</u> New York: Thames and Hudson.

- Sloan Allen, P. and Stimpson, M.F. (1994). <u>Beginnings of interior environment.</u> New York: Macmillan.
- Taylor, M.A. (1994). <u>Technology of textile properties.</u> Forbes Publications:
- Von Rosenstiel, H. and Caskey Winkler, G. (1988). <u>Floor coverings for historic buildings.</u> Washington, D.C: The Preservation Press.
- Walker, A. ed. (1989). <u>The encyclopedia of wood: a tree-by-tree</u>
  guide to the world's most versatile resource.
  Oxford: Facts
  on File.
- Whitē, A and Robertson, B. (1990). <u>Furniture and Turnishings.</u> London: Studio Vista.
  - Yaeger, J. (1988). <u>Textiles for residential and commercial interiors</u>. New York: Whitney.

# Historical References: 1987 and earlier.

- Armstrong Cork Company. (1928). <u>Custom built floors of cork.</u> Lancaster: Armstrong.
- Barnard, J. (1979). <u>Victorian ceramic tiles.</u> London: Studio Vista.
- Brisac, C. (1986). A thousand years of stained glass. Milan: Doubleday and Co.
- Cohen, A.C. (1986). Beyond basic textiles. New York: Fairchild.
- Johnson, S.C. and Son. (1924). <u>The proper treatment for floors.</u> <u>woodwork and furniture.</u> Racine: S.C. Johnson and Son.
- Hamilton, J. (1983). An introduction to wallpaper. London: HMSO.
- Neill, H. (1965). Stone for building. London: William Heinemann.
- Mellentin Haswell, J. (1973). <u>Manual of mosaic</u>. London: Thames and Hudson.

- Morton, W.E. & Hearle, J.W.S. (1975). <u>Physical properties of textile fibres.</u> New York: Wiley.
- Smith, D. (1948). <u>Metalwork: an introductory historical survey</u>. London: B.T. Batsford.
- Tate, N. (1947). The builder's materials. London: Chapman and Hall.
- Woodforde, J. (1976). <u>Bricks to build a house</u>. London: Routledge & Keegan Paul.

# COURSE ANALYSIS QUESTIONNAIRE

#### A Details of the Course

- A1 This course will be a requirement for students majoring in Interior Design. The course is not intended for inclusion in the Liberal Studies program.
- A2 This course does not require changes in content of existing courses.
- A3 This is a new course.
- A4 This course is not intended to be dual-level.
- A5 This course is not to be taken for variable credit.
- A6 Similar courses are offered at these institutions: (Appendix A)

Kent State University 34522 Methods and materials for interior design Virginia Polytechnic Institute 3174 Building systems for interiors LaRoche College 243 Materials and methods

- A7 The FIDER accrediting body states that students have "competency " (i.e. the highest achievement level as compared to "awareness" or "understanding") in design attributes and technical knowledge of materials (Appendix B).
- B. Interdisciplinary Implications
- B1 This course will be taught by one faculty member from the Human Development and Environmental Studies Department.
- B2 This course does not overlap with any other course at the University.
- One seat in each section of this course will be reserved for a student in the School of Continuing Education.
- C. Implementation
- C1 No additional faculty will be needed to teach this course.
- C2 Other Resources
  - a. Current space allocations are adequate to offer this course.
  - b. No additional equipment will be necessary to teach this course.
  - c. Supplies will be sufficient for this course.

- d. Library materials should be adequate; however, updated Uniform Building Code manuals should be considered for inclusion in the library's holdings.
  - e. Travel funds will not be necessary to teach this course.
- C3 No resources for this course are funded by a grant.
- C4 This course will be offered at least once an academic year with no seasonal restrictions.
- C5 At least one section of this course will be offered each year.
- C6 Forty (40) students can be accommodated in this course.
- C7 The Foundation for Interior Design Education Research (FIDER), curriculum 1996 guidelines are attached as Appendix B to this proposal.

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# APPENDIX A Similar Courses Taught at FIDER-accredited Institutions

Kent State University

COURSE: 34522 Methods and Materials for Interior Design

DESCRIPTION: Information regarding the manufacture, construction, and composition of the materials used in furnishings and surface materials in interior design. Proper methods and installation procedures required in the use of materials for interior furnishing products.

Virginia Polytechnic Institute & State University COURSE: 3174 Building Systems for Interiors

DESCRIPTION: Overview of common building systems, materials, and methods of basic

construction; interrelationship of exterior and interior materials.

LaRoche College

COURSE: ID 243 Materials and Methods

DESCRIPTION: The study of building and finishing materials as they pertain to architectural interiors. Materials are investigated in their relation to installation of floors, walls, and ceilings. Criteria for evaluating performance under differing conditions and the compliance with fire and building codes are discussed.

#### APPENDIX B

Relevant FIDER Criteria Addressed in ID 313 Materials and Finishes
FIDER Standards and Guidelines, Professional Level Programs, FIDER Form 402R, January 1996

## 2.10 Interior Design

2.10.9 Selection and application of finish materials, i.e. textiles, floor treatments, and wall treatments

# 2.11 Technical Knowledge

- 2.11.2 Materials, i.e. surface materials and textiles
  2.11.3 Laws, codes, standards, and ordinances, e.g. universal accessibility guidelines, life safety, fire, etc.
- 2.11.4 Specifying, estimating, and installation
- 2.11.5 Construction systems and materials
- 2.11.9 Environmental concerns, i.e. energy, ecology, indoor air quality, sustainable materials