USC Use Only Number: Submission Date: Action-Date: DEC 2 3 1997

UWUCC USE Only Number: Submission Date:

Submission Date: Action-Date: 97-26+ App. 2/17/98

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

١.	CONTACT	
	Contact Person David L. Rodgers, A	ssistant Professor Phone 357-7692
	Department Department of Human Deve	elopment and Environmental Studies
П.	PROPOSAL TYPE (Check All Appropriate	Lines)
	ID 118 COURSE	Drafting for Cons I Suggested 20 character title
	New Course*	
	X Course Revision	CS 117 Design Graphics Course Number and Full Title
	Liberal Studies Approval + for new or existing course	Course Number and Full Title
	Course Deletion	Course Number and Full Title
	X Number and/or Title Change	CS 117 Design Graphics Old Number and/or Full Old Title
		ID 118 Drafting for Construction I New Number and/or Full New Title
	X Course or Catalog Description	n Change ID 118 Drafting for Construction I
		Course Number and Full Title
	PROGRAM: Major	r Minor Track
	New Program*	
	Program Revision*	Program Name
	-	Program Name
	Program Deletion*	Program Name
	Title Change	Old Program Name
		New Program Name
111.	Approvals (signatures and date)	· A - (
Depart	ment Curcioulum Committee	Department Chair
	Mic Mote Barker 3/6/97 College Curriculum Committee	College Dean
		>//1/1/

+ Director of Liberal Studies (where applicable)

*Provost (where applicable)

I. Catalog Description:

ID 118 Drafting for Construction I

(1c-3l-3sh

Prerequisites: None

Introduces two and three dimensional graphic skills, including basic drawing, drafting, delineating, perspective drawing; applies principles and elements of design; stresses graphic design and layout

Part II. Description of the Curriculum Change

1. New Syllabus of Record

I. Catalog Description:

ID 118 Drafting for Construction I

3 credits
1 lecture hour
3 lab hours
(1c-3l-3sh)

Prerequisites: None

Introduces two and three dimensional graphic skills, including basic drawing, drafting, delineating, perspective drawing; applies principles and elements of design; stresses graphic design and layout

II. Course Objectives

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

- 1. Apply principles and elements of design to creating project documentation
- 2. Solve design problems utilizing drafting and other graphic skills
- 3. Visually describe design solutions by applying drafting, color media, tone, shadow, texture, rendering, delineating, detailing, and other fundamental graphic skills
- 4. Interpret three dimensional relationships two dimensionally
- 5. Demonstrate an understanding of perspective drawing to solve design problems and communicate solutions
- 6. Apply graphic standards rules affecting such sheet elements as symbols, representations of furniture, fixtures, and equipment, letter and numeral design, sentence layout, paragraph construction, and sheet organization
- 7. State design solutions and other information during oral presentations of design
- 8. Apply fundamental understanding of structure and materials to solving design problems graphically
- 9. Interpret design criticisms from others constructively during presentations, and, in the same positive vein, assess design solutions of others during critiques

	· · · · · · · · · · · · · · · · · · ·
III.	Detailed Course Outline(Total hours: 56)
WEE	K ONE: Interior Design, Design Graphics, and Construction Drafting: An Overview (four ho
A. Rese	Design Education Standards and the Foundation for Interior Design Education and arch (FIDER) Accreditation 1. Design awareness 2. Design understanding 3. Design competency
B. (NCII	Design practice standards and the National Council for Interior Design Qualification DQ) Examination
C. of de	Construction drafting standards and design graphics in relation to principles and elements sign
D.	Design process standards 1. Design analysis and programming 2. Design synthesis and design conceptualization
E.	Construction drafting tool kit formation 1. Pencils and leads 2. Pens and inks 3. T-squares, parallel bars, and work surfaces 4. Triangles and straight edges 5. Architects and engineers scales 6. Erasers 7. Protractors 8. Compasses and dividers 9. Templates 10. Computers
WEE! Stand	(TWO: Design Graphics, Construction Drafting, and Graphic lards
A.	Graphic standards, visual language, and visual communication
В.	Construction drafting graphic standards for architects and interior designers
C.	Construction and page layout
D.	Lines 1. Horizontal 2. Vertical 3. Diagonal 4. Curved

5. Consistency 6. Sharpness 7. Contrast, weight, and emphasis 8. Intersecting lines Letter and numeral design 1. Font style 2. Sans serif, Gothic, architectural lettering 3. Letter and numeral module design 4. Upper case lettering 5. Lower case lettering 6. Guide lines 7 Size F. Consistency Furniture, fixtures, and equipment (FF&E) graphic standards G. H. Space graphic standards 1. Residential 2. Non-residential 1. Graphic standards for original documents Graphic standards for reproductions j. 1. Photocopying 2. Diazo printing WEEK THREE: Design Graphics, Construction Drafting, and Graphic Standards (continued)(four hours) WEEK FOUR: Construction Drafting and Applying Design Theory (four hours) A. Creating design elements 1. Form a. Line b. Plane c. Volume d. Shape 2. Scale 3. Color 4. Texture 5. Pattern 6. Light B. Applying design principles

	c. Radial balance 2. Rhythm 3. Emphasis and focus 4. Contrast and variety 5. Proportion
WEEK	FIVE: Construction Drafting and Applying Design theory (continued) (two hours)
WEEK	SIX: Construction Drafting and Freehand Sketching(four hours)
A. Im	nagining
В.	Seeing
C.	Sketching quickly 1. Sketch qualities 2. Rapid sketching 3. Accurate sketching 4. Rendering sketches a. Shade b. Shadow c. Tone
D.	Color media 1. Color pencils 2. Color markers 3. Color grounds
E.	Presentation 1. Mounting methods 2. Composition 3. Oral presentation techniques and design graphics
WEEK	SEVEN: Construction Drafting Fundamentals: Orthogonal Projection (four hours)
A.	P!an
а.	Elevation
C.	Section
D.	Dimensioning

1. Balance

a. Symmetrical balanceb. Asymmetrical balance

- E. Schedules
- F. Binding drawings
 - 1. Title page
 - 2. Page numbering

WEEK EIGHT: Construction Drafting Fundamentals (continued) (two hours)
WEEK NINE: Construction Drafting and Multiview Projection (four hours)
A. Axonometric and Paraline drawings
B. Isometric drawings
WEEK TEN: Construction Drafting and Multiview Projection (continued) (two hours)
WEEK ELEVEN: Communicating Three Dimensional Relationships Two Dimensionally (four hours)
A. Basic one point perspective
B. Basic two point perspective
WEEK TWELVE: Communicating Three Dimensional Relationships Two Dimensionally (continued)
WEEK THIRTEEN: Communicating Three Dimensional Relationships Two Dimensionally
WEEK FOURTEEN: Construction Drafting and Model Making: Concept and Sketch Models
 A. Sketch model materials B. Model making tools C. Constructing models to scale
TOTAL:

Note: During the semester, two class hours are taken by a mid-term exam, and four are devoted to presentation critiques. A final design graphics problem provides the basis for the culminating event held during the finals period.

IV. Evaluation Methods

Grades for projects, quizzes, exercises, and participation will determine the final grade for the course in the following proportions:

Grading Scale:

100% - 90% A 89% - 80% B 79% - 70% C 69% - 60% D 59% - 0% F

The course grade will be weighted according to the following percentages:

Course Grade Percentages:

Projects'	60.0%
Exercises ²	10.0%
Exams ³	20.0%
Unannounced quizzes and	
exercises	5.0%
Participation:	5.0%

Total: 100.0%

V. Required Textbooks, Supplemental Books, and Readings

Required texts:

Arends, M. (1990). <u>Interior presentation sketching for architects and designers.</u> New York: Van Nostrand Reinhold.¹

Ballast, D. K. (1992). <u>Interior design reference manual</u>. Belmont, California: Professional Publications, Inc.

Doyle, M. E. (1993) Color drawing. New York: Van Nostrand Reinhold.

Supplemental Books and Readings²:

Ching, F. (1985). Architectural graphics. New York: Van Nostrand Reinhold Company.

Ching, F. (1987). Interior design illustrated. New York: Van Nostrand Reinhold Company.

Projects include developing graphic design layouts, sketches, drawings, and models.

Exercises include applying lettering, drawing, and drafting skills to short term assignments. Exams include factual questions and problems to be solved using design graphics methods.

- Hauf, H. (1970). <u>Architectural graphics standards</u>. New York: Wiley-Science Interscience Publication, New York. 1970.
- Jefferis, A. and Madsen, D. A. (1991). <u>Architectural drafting and design, 2nd ed.</u>
 Albany, New York: Delmar Publishers, Inc.
- Lockhard, W. K. (1991). <u>Freehand perspective for designers: Including shadow-casting and entourage.</u> New York: Peoper Publishing.
- Porter, T. (1990). Architectural drawing. New York: Van Nostrand Reinhold.
- Ramsey, C. and Sleeper, Harold. (1990). <u>Architectural graphic standards.</u> John Wiley & Sons, New York.
- Wakita, O. A. and Linde, R. M. (1994). <u>The professional practice of architectural working drawings</u>. New York: John Wiley & Sons, Inc.
- Weidhass, Ernest. (1981). Architectural drafting and design. Allyn and Bacon, Inc., Boston.

VI. Special Resource Requirements

Equipment List

*Mechanical pencils:

Lead holder (traditional) and pointer (sharpener)*

5mm mechanical pencils (at least three)

One 7mm mechanical pencil

One 9mm mechanical pencil

5mm Leads: HB, H, 2H, 4H

5mm non-photo blue lead

- *Conventional, graphite, wood-encased pencils for sketching: HB, H, 2H, 4H (at least one each)
- *Drafting tape or drafting dots. Note: Do not confuse with masking tape. Recommended: One roll of transparent tape to make repairs
- *Vellum: Individual sheets of 24" x 36" vellum. Initial purchase: Five.

Notebook or individual sheets of vellum to make 8 1/2" x 11" layouts

*Triangles

45 degree (8" minimum; 4" and 12" or larger recommended as well)

60 degree (8" minimum; 4" and 12" or larger recommended as well)

Adjustable triangle*

- *Circle template(s): Note: Select template circles to include 3" circle
- *French curve(s)
- *Isometric ellipse template: Note: Isometric ellipses are designed using 30° and 60° axes.

This text is subject to replacement.

²Additional supplemental books and readings to be announced

- *Compass
- *Erasers:

White block eraser

Kneaded eraser

Eraser holder and erasers

Erasing shield

Drafting brush

- *Architectural scale (12" minimum) Recommended: A six-inch bevel scale
- *Yellow tracing paper, one roll, 12" wide minimum
- *Technical drawing pens (inking pens). Select a range of three to four pens with fine, medium, and wide tips
- *Color pencils and markers. Note: Selecting a range of warm, cool, and neutral color pencils and markers will be discussed in class.
- *Drawing board(s)1. Note: Drawing boards for home use should have a Borco vinyl surface.
- *T-square1
- *Portfolio* (May be constructed)
- *Tube document carrier1
- *Model making tools and materials Note: Requirements will be discussed in class prior to assignments. Tools and materials will include knives and paper boards.
- *Journal notebook. Note: To be discussed in class

VII. Bibliography

Ambrose, J. (1991). <u>Building construction: Interior systems</u>. New York: Van Nostrand Reinhold.

- Ballast, D. K. (1994). <u>Interior construction & detailing for designers</u>
 <u>for designers and architects</u>. Belmont, CA: Professional Publications, Inc.
- Ching, F. (1985). Architectural graphics. New York: Van Nostrand Reinhold.
- Ching, F. (1987). Interior design illustrated. New York: Van Nostrand Reinhold.
- Deasy, C. M. (1990). <u>Designing places for people: A handbook on human behavior for architects, designers, and facility managers.</u> New York: Whitney Library of design.
- Doyle, M. E. (1993). Color drawing. New York: Van Nostrand Reinhold.
- Hoke, J. R. (Ed.) (1988). Architectural graphic standards (8th Ed.). New York: John Wiley & Sons.
- Jefferis, A. & Madsen, D. A. (1991). <u>Architectural drafting & design</u>. Albany, New York: Delmar Publishers Inc.
- Leibrock, C. (1993). Beautiful barrier-free. New York: Van Nostrand Reinhold.

- Lockhard, W. K. (1991). Freehand perspective for designers: Including shadow-casting and entourage. New York: Pepper Publishing.
- Pena, W. M., Parshall, S. A., & Kelly, K. A. (1987). <u>Problem seeking: An architectural programming primer.</u> 3rd ed., Washington, D. C.: AIA Press.
- Pile, J. (1995). Interior design 2nd. Ed.). Englewood Cliffs, New Jersey: Prentice Hall
- Porter, T. (1990). Architectural drawing. New York: Van Nostrand Reinhold.
- Ramsey, C. and Sleeper, H. (1990). <u>Architectural graphic standards</u>. New York: John Wiley & Sons.

Historical References (Prior to 1985)

- French, T. E., and Svensen, C. L. (1966) Mechanical drawing. St. Louis: McGraw-Hill Book Company.
- Gill, R. (1979) Basic perspective. (2nd Ed. London: Thames and Hudson.
- Gill, R. W. (1979) Creative perspective. 2nd ed. London: Thames and Hudson, 1979.
- Hauf, H. (1970). <u>Architectural graphic standards</u>. New York: Wiley-Science Interscience Publication.
- Hornung, William J. (1971) <u>Architectural drafting</u>. (5th Ed.). Englewood Cliffs, N. J.: Prentice Hall.
- Laseau, P. (1980). Graphic thinking for architects and designers. New York: Van Nostrand Reinhold.
- Panero, J. & Zelnik, M. (1979. <u>Human dimension and interior space</u>. New York: Watson-Guptil
- Reznikoff, S. C. (1979). <u>Interior graphics and design standards</u>. New York: Watson-Guptill Publications.
- Sommer, Robert. (1969). <u>Personal space: The behavioral basis of design</u>. Englewood Cliffs, N.J.: Prentice Hall, Inc.
- White, E. T. (1972). A graphic vocabulary for architectural presentation. Tucson: Architectural Media.

2. Summary of Proposed Revisions

Revisions are as follows:

- *Prefix change
- *Course number/name change
- *Course description change
- *Course objectives/topics change

3. Justification/rationale for proposed revisions

*Prefix change

The prefix change is consistent with the revised curriculum prefix.

*Course number/name change

The course number and name are changed to reflect sequencing in the revised ID program.

*Course description change

The description is changed to reflect content accurately.

*Course objectives/topics change

Objectives are rewritten to meet 1996 Foundation for Interior Design Education Research (FIDER) accreditation standards cited in Appendix A.

Section D: Miscellaneous

None

Nun Action		UWUCC Use Only Number: Action:
		Date:
	CURRICULUM PRO University—Wide Undergra	POSAL COVER SHEET duate Curriculum Committee
l.	Title/Author of Change	·
	Course/Program Title: Design Suggested 20 Character Course Transportment: Consumer Service Contact Person: M. Gayle We	de: <u>Design Graphics</u>
II.	If a course, is it being Proposed to	
•	Course Revision/Appro	oval Only Eval and Liberal Studies Approval Fal Only (Course craviously has been
111.	Accrovals	Children S
	Cecarment Curiculum Committee	Decarment Chaircerson
	Callege Curriculum Committee	Coilege Dean =
	Director of Liberal Studies (where applicable)	Frevest (where applicable)
	that all requests for resources	vith Provest before approving it by College Dean indicates that the trivial with long range planning documents, made as part of the proposal can be support of the university
īV.	Timetable	
	Cate Submitted Semester to LSC: implement	ed: published
	to UWUCC:	AY 1994-05

DESCRIPTION ON THE CURRICULAR CHANGE

1. Catalog Description

CS 117 Design Graphics

3 s.h.

Prerequisites: none Corequisite: none

Introduction to drafting and presentation techniques as they relate to interior design. Two and three dimensional graphic hand skills including drafting delineation of shading and perspective; application of color, media, texture, tone and lettering are introduced.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

CS 117 DESIGN GRAPHICS

3 credits i lecture hour 3 lab hours (1c-31-03sh)

Introduction to drafting and presentation techniques as they relate to interior design. Two and three dimensional graphic hand skills including drafting, delineation of shading and perspective; application of color, media, texture, tone, and lettering are introduced.

COURSE OBJECTIVES: II.

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

- 1. solve design problems utilizing both drafting and graphic presentation techniques.
- 2. construct a solution to a design problem in two and three dimensional graphics using the techniques of perspective, delineation, rendering, shading and shadowing.
- 3. demonstrate the application of color media, texture, tone and architectural lattering in the solution of design problems.
- 4. incorporate graphic skills into oral presentations as a means of communicating.
- evaluate and apply comments made in review of these solutions to the improvement of both graphic and verbal presentation skills.

III. COURSE CUTLINE:

- DRAFFING (2 sh lecture, 13 sh lab)
 - 1. Horizontal Lines
 - a. I-square
 - b. Parallel Rule
 - 2. Vertical Lines
 - a. 45 degree Triangle
 - b. 30/60 iagrae Triangle
 - 3. Corners
 - a. Crossing
 - s. Consistancy

- 4. Line Quality
 - a. Control
 - b. Consistency
- 5. Line Density
 - a. Control
 - b. Consistency
- 6. Lettering
 - a. Styles
 - b. Consistency
- PLANS AND ELEVATIONS (1 sh lecture, 4 sh lab)
 - a. Architect's scale
 - b. Engineer's scale
 - 2. Conventions
 - a. Materials
 - b. Measurements
 - c. Vocabulary
- C. TEKTURE (1 sh lecture, 3 sh lab)
 - i. Matariais
 - 2. Shade
 - 3. Shadow
 - 4. Eleratory of Elements
- FREIHAND DRAFTING (1 sh lecture, 3 sh lab)
 - 1. Speed
 - 2. Quality
 - 3. Rendaring
- GRAPHIC VCCABULARY (2 sh lacture, 3 sh lab)
 - i. Figures
 - 2. Tones
 - Plants
 - 4. Texture
 - 5. Furniture
- LAYING OUT INTERIOR PERSPECTIVES (2 sh lacture, 3 sh lab) ₹.
 - 1. Principles of direct perspective
 - 2. Methods of direct perspective
 - Applications of direct perspective
- 3. SHADE AND SHADOW CASTING (1 sh lecture, 3 sh lab)
 - Principles of snedow pasting
 - decreti di suscom disting-

- FINISHING A DRAWING (1 sh lecture, 4 sh lab)
 - Placement of interior contents
 - Indicating sunlight 2.
 - Indicating artificial light
 - Locating figure groups
 - Reflections 5.
 - Placement of textures б.
- PRESENTATION (1 sh lecture, 4 sh lab)
 - 1. Mounting methods
 - 2. Composition methods
 - Oral presentation techniques

IV. EVALUATION METHODS

The final grade for this course will be based on the TESTS

- 1. One @ 250 points
- 2. Final exam
- The exam will consist of the drafting of a plan, elevation, and perspective drawing, all produced in a limited time. 13.9% of grade

EXERCISES

- 1. 26 @ 20 points each = 520 points
- 2. Assigned throughout the semester
- 3. May be submitted multiple times for re-evaluation

PROJECTS

- 1. 1 0 250 points
- 2. 1 4 750 points
- 3. Assigned after mid-term
- 4. Consists of floor plans, elevations, perspectives, and oral presentations.
- 5. May not be submitted multiple times for re-5. SS.6% of grade

CNAMNCUNCED QUIEZZES

- i. Total of 30 points
- 2. 1.5% of grade

E. FINAL POINT SCALE

A B C C F	1520-1300 points 1440-1519 points 1250-1409 points 1080-1259 points 0-1079 points	90 - 100% 80 - 39.9% 70 - 79.9% 60 - 79.9%
 -		0 - 59.93

SECOURED TEXT

William Kirby Lockard; TRITTAND PERSPECTIVE FOR DESIGNERS,

- SPECIAL RESOURCE REQUIREMENTS VI. Each student will be expected to supply the following: (These items will be used throughout the students' education and professional development)
 - Prismacolor pencils; red, blue, white, black, green,
 - Marker pens; red, green, blue, fine tip black and a broad tip black marker
 - C. Buff tracing paper
 - D. 8" 45 degree triangle
 - E. 8" or 4" 30/60 degree triangle
 - F. Architect's scale
 - G. Eraser
 - H. Pencil
 - I. Drafting tape
 - 0.5am Pental pencil

VII. BIBLICGRAPHY

See list

VIII. SAMPLE LABORATORY (STUDIO ACTIVITY)

- Review previous project
 - A. Present projects graphically and verbally
 - 3. Critique each student's work
 - C. Encourage student discussion
 - Evaluate student's understanding through a quality D. assessment of displayed projects
 - Review previous lesson if necessary
- Demonstrate new graphic skill
 - A. Present concept on chalkboard
 - 3. Reinforca concept using video tapes and book
 - C. Monitor student competence as they practice
 - D. Summarice lesson
- Assign new project

BIBLIOGRAPHY CS 117 - DESIGN GRAPHICS REFERENCES

Allen, Phyllis and Stimpson, Miriam, <u>Beginnings of Interior</u> <u>Environment</u>. Macmillan Publishing Company, New York 1990

Ching, Francis, <u>Interior Design Illustrated</u>. Van Nostrand Reinhold Company, New York 1987

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Ching, Frank, <u>Architectural Graphics</u>. Van Nostrand Reinhold Company, New York 1985

Committee on Production Office Procedures. Recommended Standards on Production Procedures. Northern California Chapter American Institute of Architects 1980

Cooper, Douglas, <u>Grawing and Perceiving</u>. Information Dynamics Inc., Maryland 1983

Edwards, David, <u>How to be More Creative</u>. Occasional Productions, California 1980

Edwards, Betty, <u>Drawing on the Artist Within</u>. Sinch & Schuster, Inc., New York 1986

Evans, Larry, <u>lliustration Guide</u>. Van Nostrand Reinhold Company Inc., New York 1982

Harris, John and Higgor, Gordon. Inigo Jones. The Stawing Canter, New York 1989

Hauf, Harold, <u>Architectural Graphic Standards</u>. Wiley-Science Interscience Publication, New York 1970

Lockard William Mirby, <u>Freehand Perspective for Designers</u>. Pepper Publishing, Aricona 1991

Lockard, William Kirby, <u>Orawing Techniques for Designers</u>. Pepper Publishing, Aricona 1991

lockard, William Wirby, <u>Design Drawing Experiences</u>. Pepper Publishing, Arizona 1989

lockard, William Kirby, <u>Dasian Drawing Emeriances</u>. Papper Publishing, Aricona 1987

Lockard, William Kirby, <u>lasion Crawing</u>. Pepper Publishing, New York 1982

McKeachie, Wilbert, <u>Teaching Tips</u>. D.C. Health and Company, Massachusetts 1936

Nevins, Deborah and Stern, Robert, The Architect's Eve. Pantheon Books, New York 1979

Ramsey, Charles and Sleeper, Harold, <u>Architectural Graphic</u>
<u>Standards</u>. John Wiley & Sons, New York 1990

Riggs, J. Rosemary, <u>Materials and Components of Interior Design</u>.
Prentice Hall, New Jersey 1989

Saarinen, Eliei, The Search for Form. Dover Publications, New York 1985

Weidhaas, Ernest, <u>Architectural Drafting and Design</u>. Allyn and Bacon, Inc., Boston 1981

EISTORICAL REFERENCES (1979 or earlier)

Birran, Faber, <u>Color & Human Response</u>. Van Nostrand Reinhold Company. New York 1978

Bollow, Janet, <u>Amonipactural Drawing and Planning</u>. McGraw-Hill Company, New York 1972

Buckles, G. Matthew, <u>Building Architectural & Interior Design</u>.
Belpine Publishing Company, California 1991

Burden, Ernest, <u>Architectural Delineation</u>. McGraw-Hill Book Company, New York 1971

Edwards, Betty, <u>Drawing on the Bight Side of the Brain</u>. St. Martin's Press, New York. 1979.

Kamper, Alfred M., <u>Oravinos by American Architects</u>. Wiley-Interscience Publication, New York 1978

Kamper, Alfred, <u>Presentation Crawings by American Architects</u>. Wiley-Interscience Publication, New York 1977.

Lockard, William Kirby Drawing as a Means to Architecture. Pepper Publishing, Arizona 1979,

Muschamp. Harrart, File Under Architecture. The Massachusetts Institute of Tachnology. Massachusetts 1974,

Pile. John. <u>Drawings of Architectural Interiors</u>. Whitney Library of Gesign. New York 1967

Appendix A

Relevant FIDER Criteria Addressed in This Course

FIDER Standards and Guidelines, Professional Level Programs, FIDER Form 402R, January 1996

2.9	Basi	c and	Creati	ve Arts

2.9.1	Two-dimensional studio: basic and creative arts and crafts
	Three-dimensional studio: basic and creative arts and crafts

2.10 Interior Design

2.10.1	Design process, i.e. programming, conceptualization, problem solving, evaluation
2.10.4	Space planning, residential
2.10.8	Application of design principles and elements

2.11 Technical Knowledge

2.11.3	Laws, codes, standards, ordinances
2.11.5	Construction systems and materials
2.11.6	Building systems

2.12 Communications Skills

2.12.1	Visual presentation, i.e. sketching, delineation, etc.
	Working drawings, including drafting, lettering, symbols, dimensioning