

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

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Proposing Department/Unit Human Development & Environmental Studies	Phone 724/357-7692

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply)

New Course       Course Prefix Change       Course Deletion  
 **XX Course Revision**       Course Number and/or       Catalog  
 Title Change       Description Change

INDS 218 Drafting for Construction II

Proposed course prefix, number and full title, if changing

Current Course prefix, number and full title

2. Additional Course Designations: check if appropriate

This course is also proposed as a Liberal Studies Course.       Other: (e.g., Women's Studies, Pan-African)  
 This course is also proposed as an Honors College Course.

3. Program Proposals

New Degree Program       Program Title Change       Other  
 New Minor Program       New Track  
 Catalog Description Change       Program Revision

BS Interior Design

Current program name      Proposed program name, if changing

4. Approvals		Date
Department Curriculum Committee Chair(s)	<i>Sally McCombie</i>	2-17-03
Department Chair(s)	<i>Linda A. Nelson</i>	2-19-03
College Curriculum Committee Chair	<i>[Signature]</i>	4-2-03
College Dean	<i>[Signature]</i>	4-2-03
Director of Liberal Studies		
Director of Honors College		
Provost		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Carl Stechert</i>	4-22-03

\* where applicable

APR - 2 2003

LIBERAL STUDIES

## 1. New Syllabus of Record

### Description of the Curriculum Change

#### I. Catalog Description:

INDS 218 Drafting for Construction II

1 lecture hour  
3 laboratory hours  
3 credit hours  
(1c-3l-3cr)

Prerequisite: INDS 118

Introduces basic computer aided drafting and design (CADD) for designers; emphasizes CADD theory and the value of the computer as a problem solving, design tool.

#### II. Course Objectives:

Students will be able to:

- A. define basic CADD terminology
- B. demonstrate an understanding of the role of CADD in the design process
- C. apply CADD theory to design problem solving
- D. utilize CADD to interpret and apply principles and elements of design
- E. utilize CADD to analyze information and assess two dimensional design relationships
- F. utilize CADD to analyze information and assess three dimensional design relationships
- G. effectively apply CADD to reproduce existing drawings and create working drawing

#### III. Course Outline

1 lecture hour, 3 laboratory hours per week

**WEEK ONE:** Course introduction; CADD theory; 2-D CADD fundamentals ..... (4 hours)

- A. Starting a CADD program, beginning a drawing, using menus
- B. Defining drawing format, snapping, saving work; exiting
- C. Recalling existing drawings
- D. Creating layers
- E. Drawing lines and circles

- WEEK TWO:** Two-dimensional CADD fundamentals..... (4 hours)
- A. Using coordinates to locate a point
  - B. Drawing Arcs, Ellipses, and Solids
- WEEK THREE:** Intermediate drawing commands..... (4 hours)
- A. Drawing patterns
  - B. Arrays
- WEEK FOUR:** Text and project output..... (4 hours)
- A. Adding text to drawings
  - B. Editing text
  - C. Printing and Plotting
- WEEK FIVE:** Drawing the floor plan..... (4 hours)
- A. Walls, doors and windows
- WEEK SIX:** Drawing the floor plan cont.; Dimensioning and area calculations (4 hours)
- A. Dimensions for floor plans and elevations
  - B. Measuring a perimeter
  - C. Measuring square footage
- WEEK SEVEN:** Drawing the floor plan, dimensioning and area calculations .... (4 hours)
- A. Mid-Term Exam
- WEEK EIGHT:** Drawing the furniture plan, furnishings, and specifying..... (4 hours)
- A. Creating blocks
  - B. Adding attribute definitions to blocks
  - C. Creating Wblocks
- WEEK NINE:** Drawing the furniture plan, furnishings, and specifying cont..... (4 hours)
- WEEK TEN:** Drawing the reflected ceiling plan and power plan..... (4 hours)
- A. Creating a legend and general notes
- WEEK ELEVEN:** Isometric drawing ..... (4 hours)
- A. Creating and isometric drawing
  - B. Editing isometric drawings
- WEEK TWELVE:** Introduction to three-dimensional models..... (4 hours)

- A. Creating a three-dimensional object
- B. Editing three-dimensional objects
- C. Manipulating views of three-dimensional objects

**WEEK THIRTEEN:** Using paper space and model space ..... (4 hours)

- A. Importing title blocks
- B. Creating multiple views of model space in paperspace
- C. Scaling a drawing within a drawing

**WEEK FOURTEEN:** Menu customizing ..... (4 hours)

**Culminating Activity:** (2 hours)

#### IV. Evaluation Methods:

20% There will be two exams during the semester; the first exam is the mid-term exam. The second exam is the final exam. Exams will include objective questions (multiple choice, true and false, and matching); short, written answer questions; and practicum problems. A practicum problem will consist of solving a drawing problem at the computer within a given period of time. Questions will test the student's comprehension and application of major concepts addressed in the course.

80% The student will complete a minimum of four projects based on applying procedures and concepts presented in the course. Possible project include computer aided designing and drafting of floor plans, elevations, sections, details, isometric views of space, and perspective views. Some designs will be derived from the student's portfolio, others from texts, and still others will result from solving assigned design problems. Assignments will be evaluated on their completeness, accuracy, presentation quality, application of graphic standards, and demonstrated appropriateness of applied CADD procedures.

#### V. Example Grading Scale:

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

## **VI. Undergraduate Course Attendance Policy**

1. Attendance is required. To do well in this course you must be present and on time, with the required supplies.
2. It is the student's responsibility to collect notes and other information missed during an unapproved absence.

## **VII. Required Textbooks, Supplemental Books, and Readings**

### **A. Required textbook**

Kirkpatrick, B. & Kirkpatrick, J. (2002). AutoCAD for interior design and space planning using AutoCAD 2002. Upper Saddle River, New Jersey: Prentice Hall.

### **B. Supplemental Books and Readings**

DeChiara, J., Panero, J., & Zelnik, M. (1991). Time-Saver Standards For Interior Design And Space Planning. New York: McGraw-Hill.

Kirkpatrick, J. (2002). Basic drafting using pencil sketches and AutoCAD. Upper Saddle River, New Jersey: Prentice Hall.

Spence, W. (1993). Architectural Working Drawings. New York: John Wiley & Sons.

## **VIII. Special Resource Requirements**

None

## **IX. Bibliography**

### **A. CADD**

Feng, J. (2002). Basic AutoCAD for interior designers. Upper Saddle River, New Jersey: Prentice Hall.

Guenther, J., & Ocoboc, E. (1991). AutoCAD methods and macros. Blue Ridge Summit, Pennsylvania: Tab Books.

Head, G. O. & Head, J. D. (1991). 1000 AutoCAD tips and tricks. Chapel Hill, North Carolina: Ventana Press

Jefferis, A., and Madsen, D. (2001). Architectural drafting & design (4th Ed.). Albany, New York: Delmar Publishers Inc.

Kirkpatrick, B. & Kirkpatrick, J. (1999). AutoCAD for interior design and space planning. (3rd Ed.). Upper Saddle River, New Jersey: Prentice Hall.

Kirkpatrick, B. & Kirkpatrick, J. (2002). AutoCAD for architectural drawing using AutoCAD 2002. Upper Saddle River, New Jersey: Prentice Hall.

McLain-Kark, J. (1998). The designer's AutoCAD release 14 tutorial. New York: Dame Publications Inc.

Mitchell, W. J. & McCullough, M. (1995). Digital design media. New York: Van Nostrand Reinhold.

## B. Conventional Drafting and Design

Ching, F. (2001). Building Construction Illustrated. (3rd Ed.). New York: John Wiley & Sons.

Hoke, J. R. (Ed.) (1988). Architectural graphic standards. (8th Ed.) New York: John Wiley & Sons.

## **2. Summary of Proposed Revisions**

The pre-requisite, BTED/COSC/IFMG 101 Microbased Computer Literacy, is being dropped.

## **3. Justification/Rationale for the Revision**

Students entering the Interior Design (ID) program now typically have the computer background necessary for INDS 218. Moreover, this adjustment reduces the ID curriculum by three semester credits to comply with the 120 credit hour mandate.

## **4. Old Syllabus of Record**

See attached

## **5. Letter of Support or Acknowledgement**

See attached

# OLD SYLLABUS OF RECORD

## I. Catalog Description:

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

ID 218 Drafting for Construction II

Prerequisites: ID 118; IM/BE/CO 101 Microbased Computer Literacy

Introduces basic computer aided drafting and design (CADD) for designers; emphasizes CADD theory and the value of the computer as a problem solving, design tool.

## II. Course Objectives:

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

1. Define basic CADD terminology
2. Demonstrate an understanding of the role of CADD in the design process
3. Apply CADD theory to design problem solving
4. Utilize CADD to interpret and apply principles and elements of design
5. Utilize CADD to analyze information and assess two dimensional design relationships
6. Utilize CADD to analyze information and assess three dimensional design relationships
7. Effectively apply CADD to reproduce existing drawings and create working drawing

## III. Course Outline

(Total: 56 hours)

**WEEK ONE:** Introduction to course and CADD theory ..... (four hours)

- A. Review syllabus
- B. Introduce topics
- C. Introduce drafting equipment
- D. Distribute equipment list
- E. Introduce text(s)

**WEEK TWO:** Understand the personal computer (PC) system and its parts ..... (four hours)

- A. Central Processing Unit (CPU) hard disk drive
- B. Floppy disk drive
- C. Display monitor
- D. Keyboard
- E. Data entry using a mouse, digitizing tablet, or puck
- F. CD ROM
- G. Printer
- H. Plotter
- I. Floppy disks
- J. Diagram computer system(s)
- K. Operating system requirements and start up information

**WEEK THREE:** Two-dimensional CADD fundamentals ..... (three hours)

- A. Starting a CADD program, beginning a drawing, using menus
- B. Defining drawing format, snapping, saving work; exiting



- C. Recalling existing drawings
- D. Creating layers
- E. Drawing lines and circles
- F. Drawing geometry, shapes and patterns
- G. Drawing orthographically, creating blocks, and editing blocks
- H. Printing and plotting drawings
- I. Adding text to drawings
- J. Applying basic editing rules
- K. Exploiting coordinate systems
- L. Dimensioning

**WEEK FOUR:** Understand file management, DOS commands, and icons..... (four hours)

- A. Understand file management systems and file types
- B. Create directories and subdirectories
- C. Open menus
- D. Manage files
- E. Enter directories
- F. Access alternative drives
- G. Format floppy disks
- H. Make a directory and copy drawing files
- I. Rename file(s)
- J. Copy disks
- K. Delete directories
- L. Create libraries

**WEEK FIVE:** Intermediate drawing commands..... (three hours)

- A. Basic editing
- B. Configuration
- C. Entities
- D. Text

**WEEK SIX:** Drawing the floor plan: walls, doors and windows ..... (four hours)

**WEEK SEVEN:** Dimensioning and area calculations..... (three hours)

#### **MID-TERM BREAK**

**WEEK EIGHT:** Drawing elevations, wall sections and details ..... (four hours)

**WEEK NINE:** Drawing the furniture plan, furnishings, and specifying..... (three hours)

**WEEK TEN:** Drawing the reflected ceiling plan and power plan ..... (four hours)

**WEEK ELEVEN:** Isometric drawing ..... (three hours)

**WEEK TWELVE:** Introduction to three-dimensional models and perspective drawings .... (four hours)

**WEEK THIRTEEN:** Three-dimensional drawing continued..... (four hours)

**WEEK FOURTEEN:** Menu customizing..... (four hours)

NOTE: Exams will occupy three of six semester hour class periods; and three hours will consist of open laboratory periods.

**FINAL EXAM:** on regularly announced finals day

#### IV. Evaluation Methods:

50% There will be four exams spaced throughout the semester; the fourth exam is the final. Exams will vary in format, including objective questions (multiple choice, true and false, and matching); short, written answer questions; and practicum problems. A practicum problem will consist of solving a drawing problem at the computer within a given period of time. Questions will test the student's comprehension and application of major concepts addressed in the course.

40% The student will complete a minimum of four projects based on applying procedures and concepts presented in the course. Possible project include computer aided designing and drafting of floor plans, elevations, sections, details, isometric views of space, and perspective views. Some designs will be derived from the student's portfolio, others from texts, and still others will result from solving assigned design problems. Assignments will be evaluated on their completeness, accuracy, presentation quality, application of graphic standards, and demonstrated appropriateness of applied CADD procedures.

10% During the course, the student will complete a minimum of four exercises designed to test comprehension of CADD concepts and procedures. Possible exercises include applications of procedures and commands associated with organizing procedures, developing orthographic projections, and three dimensional images.

#### Grading Scale:

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

#### V. Required Textbooks, Supplemental Books, and Readings

##### A. Required textbooks

Kirkpatrick, B. L. & Kirkpatrick, J. M. (1994). AutoCAD for interior design and space planning. New York: MacMillan Publishing.

Omura, G. (1992). Mastering AutoCAD release 12. Alameda, California: Sybex.

##### B. Supplemental Books and Readings<sup>1</sup>

Conventional drafting

Jefferis, A., and Madsen, D. (1991). Architectural drafting & design. Albany, New York: Delmar Publishers Inc.

Porter, T. (1990). Architectural drawing. New York: Van Nostrand Reinhold.

Wakita, O. A. and Linde, R. M. (1984). The professional practice of architectural working drawings. New York: John Wiley & Sons.

<sup>1</sup>Additional readings will be put on reserve in the campus library, presented in handouts, and made available elsewhere.

## VI. Special Resource Requirements

Required supplies:

1. Ten 3.5-inch double side high density (1.4 meg) floppy disks
2. Portable floppy disk container(s)
3. 12 Vellum sheets 24" x 36"

Recommended supplies:

1. Mechanical pencils: 5 mm mechanical pencils to hold the following leads: HB, H, 2H, and 4H
2. Drafting tape or drafting dots
3. Triangles: 45<sup>o</sup>, 60<sup>o</sup>, adjustable
4. Templates: circle, isometric ellipse
5. French curve(s)
6. Compass
7. Erasers
  - a. White block eraser
  - b. Kneaded eraser
  - c. Eraser holder and erasers
8. Erasing shield
9. Drafting brush
10. Architect's scale
11. Tracing paper
12. Vellum
13. Technical drawing pens (inking pens)
14. Additional recommended tools
  - a. 24"x 36" (min) drawing board
  - b. 36" T-square
  - c. 36" straight edge
  - d. Portfolio document carrier

## VII. Bibliography

### A. CADD

Berghauer, W. & Schlieve, P. L. (1989). Illustrated AutoCAD. Plano, Texas: Wordware Publishing.

Crosley, M. L. (1987). The architect's guide to computer-aided design. New York: John Wiley.

Guenther, J., & Ocoboc, E. (1991). AutoCAD methods and macros. Blue Ridge Summit, Pennsylvania: Tab Books.

- Head, G. O. & Head, J. D. (1991). 1000 AutoCAD tips and tricks. Chapel Hill, North Carolina: Ventana Press
- Mitchell, W. J. & McCullough, M. (1995). Digital design media. New York: Van Nostrand Reinhold.
- Radford, A. & Stevens, G. (1987). Computer-aided drafting in CADD made easy: A comprehensive guide for architects and designers. New York: McGraw-Hill.
- Raker, D. & Rice, H. (1989). Inside AutoCAD. Thousand Oaks, California: New Riders Publishing.
- Schilling, T. G. & Schilling, P. M. (1987). Intelligent drawings: Managing CAD and information systems in the design office. New York: McGraw-Hill.
- Wohlens, T. T. (1988) Applying AutoCAD: A step-by-step approach. Mission Hills, California: Glencoe

## B. Conventional Drafting and Design

- Ching, F. (1985) Architectural graphics. 2nd Edition. New York: Van Nostrand Reinhold.
- DeChiara, J., Panero, J., and Zelnik, M. (1991). Time-saver standards for interior design and space planning. New York: McGraw-Hill.
- Hoke, J. R. (Ed.) (1988). Architectural graphic standards. (8th Ed.) New York: John Wiley & Sons.

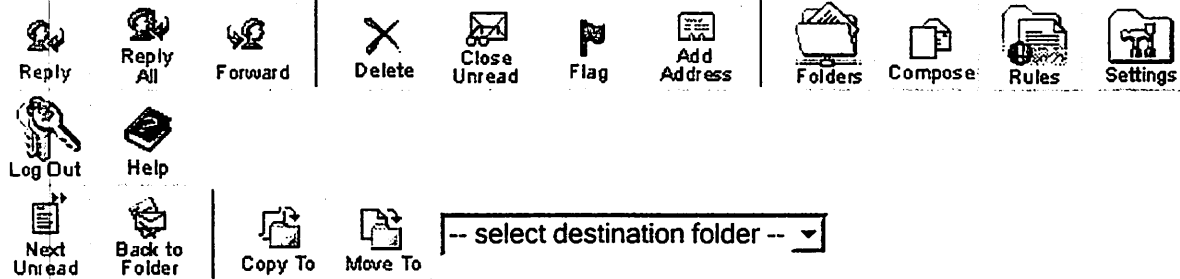
## Historical References (Prior to 1985)

### Conventional Drafting

- French, T. E., and Svensen, C. L. (1966). Mechanical drawing. St. Louis: McGraw-Hill Book Company.
- Gill, R. W. (1979). Basic perspective. (2nd Ed. London: Thames and Hudson.
- Gill, Robert W. (1979). Creative perspective. 2nd ed. London: Thames and Hudson, 1979.
- Hornung, W. J. (1971). Architectural drafting. (5th Ed.). Englewood Cliffs, N. J.: Prentice Hall.
- White, E. T. (1972). A graphic vocabulary for architectural presentation. Tucson: Architectural Media

# LETTER OF SUPPORT

IUP I-Mail:  Message from INBOX Folder



**From:** "Christine Wilson Kesner" <ckesner@iup.edu>  
**Subject:** Fw: COSC/IFMG/BTED 101 Microbased Computer Literacy  
**Date:** Thu, 6 Feb 2003 07:39:12 -0500  
**To:** "Sally McCombie" <smccomb@iup.edu>  
**Cc:** "Linda Kojnok" <lkojnok@iup.edu>, "Linda Nelson" <lnelson@iup.edu>, "Chad Gibbs" <cgibbs@iup.edu>, "Frank Viggiano" <viggiano@iup.edu>



FYI.

cwk

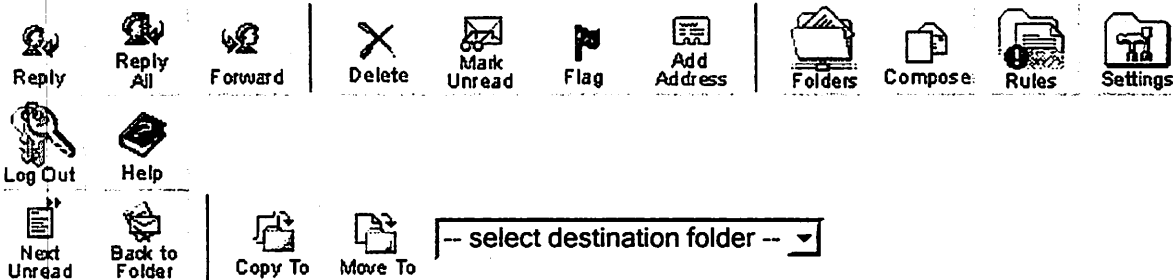
Christine Wilson Kesner, Ph.D., LC  
 Professor, Interior Design  
 Indiana University of Pennsylvania (IUP)  
 Department of Human Development and Environmental Studies  
 207 Ackerman Hall  
 911 South Drive  
 Indiana, PA 15705  
 Office phone: 724.357.2395  
 Dept. phone: 724.357.2336  
 Dept. fax: 724.357.5941

----- Original Message -----

**From:** "Christine F Kesner" <ckesner@iup.edu>  
**To:** "Jim Wolfe" <jlwolfe@iup.edu>  
**Cc:** <viggiano@iup.edu>; <cgibbs@iup.edu>  
**Sent:** Monday, February 03, 2003 1:56 PM  
**Subject:** Re: COSC/IFMG/BTED 101 Microbased Computer Literacy

> Jim,  
 > Thanks for supporting the proposed Interior Design curriculum  
 > change. I appreciate your recommendation and will present it to the  
 > other ID faculty for future consideration.  
 >  
 > Chris Kesner  
 >  
 >  
 >  
 > On Mon, 03 Feb 2003 12:06:33 -0500  
 > Jim Wolfe <jlwolfe@iup.edu> wrote:  
 > >Chris Kesner,  
 > >

> >I would agree that students today generally have some understanding  
 > >of  
 > >computers before coming to the university. Our surveys show that use  
 > >of  
 > >word processing, e-mail, and Internet access are the elements that  
 > >most  
 > >students have in their backgrounds. You indicate that use of  
 > >databases  
 > >and spreadsheets is not needed by Interior Design students. Those  
 > >two  
 > >components, along with computer concepts, are the least understood by  
 > >incoming students.  
 > >  
 > >Based on what is reasonable to expect a ID student to know already  
 > >and  
 > >on the contents of COSC 101, we can understand your choice to delete  
 > >this course as a required LS elective. We support your curriculum  
 > >change.  
 > >  
 > >Based on the growing dependence on the Internet in business and on  
 > >the  
 > >visual nature of interior design, you may want to consider having ID  
 > >students take COSC 201 (Internet and Multimedia) to understand how to  
 > >make a Web site and/or construct a multimedia presentation. Just a  
 > >thought.  
 > >  
 > >Jim Wolfe  
 > >Chair, Computer Science  
 >  
 >



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 Last updated: 11/29/2001 by jbr