

El Paso Community College
Syllabus
Part II
Official Course Description

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| SUBJECT AREA | <u>Fashion Technology</u> |
| COURSE RUBRIC AND NUMBER | <u>FSHD 2370</u> |
| COURSE TITLE | <u>Computer-Aided Apparel Design</u> |
| COURSE CREDIT HOURS | <u>3 2 : 2</u> Credits Lec Lab |

I. Catalog Description

Introduces computer-aided apparel design. Students learn the fundamentals of computerized pattern design, marker making, and grading as they pertain to the industrial production of apparel products. (2:2). Lab fee.

II. Course Objectives

A. Unit I. Grade Rule Tables

1. Discuss the critical need for mathematical accuracy, pattern perfection, and comprehensive attention to detail when working in production.
2. Explain the efficiency of using grade rules for pattern sizing.
3. Use mathematics to develop accurate grade rule tables.
4. Convert fractions to decimals and decimals to fractions.
5. Enter grade rules into the computer system.
6. Apply grade rules in the development of patterns in various size scales.
7. Check grade rules for accuracy.
8. Use and maintain task logs.
9. Back up data.

B. Unit II. Digitizing on the Two-Dimensional Digitizer

1. Prepare patterns for digitizing.
2. Use appropriate techniques to avoid damage to digitizing table.
3. Operate a digitizing table and key cursor.
4. Demonstrate professional accuracy standards when digitizing patterns.
5. Enter information for pattern identification.
6. Digitize patterns including all internal lines, cut lines, sew-lines, curve points, and notches.
7. Follow procedures to view the digitized patterns on the computer monitor.

C. Unit III. Operation of Computerized Grading System

1. Identify hardware needed for computerized grading.
2. Start up, shut down, and reboot the system.
3. Demonstrate basic troubleshooting.

4. Use appropriate piece definition.
5. Define pattern pieces to create a complete garment.
6. Utilize garment piece checklists.
7. Read and interpret a production spec sheet.
8. Grade patterns to specifications.
9. Verify and document grade.
10. Submit grade for approval.
11. Name and save work on computer.
12. Use library and Internet research techniques to stay current with computerized apparel design technology.

D. Unit IV. Operation of Computerized Marking System

1. Identify hardware needed for computerized marking.
2. Create a cutter's must.
3. Determine spread sequence.
4. Develop cost-efficient markers.
5. Calculate the cost of marker inefficiency as it relates to various price and production levels and explain the need for efficiency in marker making.
6. Evaluate the characteristics of markers made for high production runs versus small production runs.
7. Create and revise markers.
8. Add and delete sizes in marker making.
9. Use marker constraints such as plaid matching, pattern layout, layers, pairs, nap, splicing, and cutting guidelines.
10. Evaluate marker efficiency based on garment style and marker layout.
11. Determine yield and allocation.
12. Develop high efficiency markers which accommodate either human or computer numerical controlled cutters.
13. Develop and maintain a marker log.
14. Identify a marker copier and explain its function in the industry.
15. Break down a cut to scale.

E. Unit V. Operation of Plotter

1. Operate a plotter.
2. Plot pattern pieces in full size and to scale.
3. Plot nested patterns to check grading accuracy.
4. Draw markers in full size and to scale.

F. Unit VI. Operation of Computerized Pattern Design System

1. Define pattern pieces to create a complete garment.
2. Measure line lengths.
3. Identify the need for matched seams.
4. Blend pattern lines for accuracy.
5. True (walk) pattern
6. Correct patterns.
7. Perform pattern manipulation.
8. Create pockets.
9. Combine and split pattern pieces.
10. Evaluate adherence to specifications
11. Add notches and grain lines.
12. Add appropriate seam allowances.
13. Determine major and minor trim utilization.

G. Unit VII. Production Control

1. Describe production control as it pertains to work-in-process, flow-charting, and work flow.
2. Manage variability of dye lots, naps, and directionals
3. Evaluate the need for production control in the operation of a manufacturing plant as it pertains to cost of production.
4. Schedule production of samples for a theoretical apparel manufacturing plant.

III. THECB Learning Outcomes (WECM)

Learning outcomes/objectives are determined by local occupational need and business and industry trends.

IV. Evaluation

A. Grade percentages for determining course grades may be devised by the individual instructor.

B. Grading Scale:

A = 93 - 100

B = 83 - 92

C = 73 - 82

D = 68 - 72

I = INCOMPLETE

W = WITHDRAWN

F = BELOW 68

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.