WOLLO UNIVERSITY

Kombolcha Institute of Technology

School of Textile, Leather and Fashion Design

Department of Fashion Design

Course Name: CAD in Pattern Making

Course Guide Book

A. Basic Information

Title of the Course: CAD in Pattern Making and grading	**Course Manager:** Tsegay Melaku			
Course Code: Greg 3162	**Office location:**			
Credits: 6	**Email:** denkaboy12@gmail.com or			
Target Group: 3rd Garment engineering	**Mobile:** +251 912733391			
Contact Hours	**Lecture**	**Tutorial**	**Lab or Practical**	**Home Study**
	1	**0**	**6**	**3**

B. Course Description

The term CAD has found its way into all major disciplines that have got anything to do with designing or drafting techniques. The major objective of this course is to expose the students to know CAD software available in the field of fashion and garment technology, so that they are able to use that software in the design and construction of various garments

C. Objectives of the course

The main objectives of this course are:

- To know the available garment CAD software's
- To draft pattern using CAD
- To make pattern grading and lay plan or marker making.
- To incorporate in design students the Knowledge and operation of CAD package for pattern making/ digitizing/ grading/ marker making.

D. Tentative schedule of lecture and practical class (lab)Topics, Activities and Assignments, and Readings

Weeks	Lecture session	Practical session	Reading
1&2	**CHAPTER-1 INTRODUCTION TO CAD IN PATTERN MAKING** ▶ What is CAD in pattern making ▶ Activities of CAD system ▶ Role of CAD to designer in fashion and apparel Industry ▶ Available CAD software in fashion industry ▶ Automatic pattern generating system (APGS) ▶ Components of APGS	Introducing about the software	▶ **Lecture session** will be given by instructor ▶ **Lab session :** use Lectra user manual
		Activity 1 - Ladies Skirt	▶ **Lab session** use Lectra user manual
3 &4	**CHAPTER-2 PATTEN DESIGN SYSTEM (PDS)** ▶ What is Pattern Design System ▶ Application and activities of Pattern Design System ▶ RICHPEACE Pattern Design System ▶ Types of RICHPEACE Pattern Design System	Activity 2 - Basic T Shirt	▶ **Lecture session** Computer-aided pattern design and product development ▶ **Lab session** use Lectra user manual
		Activity 3 - High Neck Shirt	▶ **Lab session** use Lectra user manual
5&6	**CHAPTER-3 PATTERN DIGITIZING AND GRADING** ▶ What is pattern digitizing ▶ Components of digitizer ▶ What is pattern grading ▶ Purpose of pattern grading ▶ Components of grading system ▶ Types of pattern grading ▶ Procedure of developing a grading system	Activity 4 – Polo T Shirt	▶ **Lecture session** Grafis-Software Dr. Kerstin Friedrich, 6th revised edition of chapters 1 and 2 ▶ Concept of pattern grading ▶ **Lab session** use Lectra user manual
		Activity 5 - Men's Trouser	▶ **Lab session** use Lectra user manual

Mid-term exam			
8	**CHAPTER-4 MARKER MAKING AND PLOTTING** ▶ Factor should be considered before marker making ▶ Methods of marker making ▶ Types of computer marker making ▶ Methods of drawing and duplicating marker making ▶ Influencing factor related to marker efficiency ▶ Fabric wastage outside the marker	Activity 6- Ladies Blouse	▶ **Lecture session** Graf's-Software Dr. Kerstin Friedrich, 6th revised edition of chapters 1 and 2 ▶ **Lab session** use Lectra user manual
9&10	**CHAPTER-5 CAD IN MADE TO MEASURE** ▶ What made to measure MTM and its application andbenefits? ▶ 3-D Body Scanner ▶ Step in scanning ▶ 3-D body scanner company ▶ Virtual Shopping	Activity 7- Ladies Dress	▶ **Lecture session** will be given by instructor ▶ **Lab session** use Lectra user manual
11&12`	**CHAPTER-6 COMPUTER TECHNOLOGY IN THEAPPAREL INDUSTRY** ▶ Computer aided administration CAA ▶ Computer aided manufacturer CAM ▶ Electronic point of sales EPS ▶ Product data management system PDM ▶ ICT in the three phase of production ▶ Benefits of computer technology in garment industry	Project -Suit /coat	▶ **Lecture session** will be given by instructor ▶ **Lab session** use Lectra user manual ▶ Pattern making for fashion designer-Helen Joseph Armstrong, 5th Edition
Final examination			

E. Teaching Methods

Lectures and Laboratory/Practical exercises supported by assignments; special emphasis on hands-on experience in the relevant CAD software

F. Assessment Methods

The practical work will be evaluated for 50% and the lecture part will be evaluated for 50%. The evaluation details are given below.

Continuous Assessment Method	Weight
Lecture Part (weight 25%)	
Mid examination	40%
Final Examination	60%
Lab/practical Part(weight 75%)	
Lab/Practical Records:	60%
Project with Demonstration/ Defense	40%

G. Grading System: If total summation mark of lecture and tutorial session out of 100 is:->=90, "A+", >=85,"A", >=80,"A-", >=75,"B+", >=70,"B", >=65,"B-", >=60,"C+", >=50,"C", >=45,"C-", >=40,"D", >=30, "Fx", <30, "F"

H. Course Policy

All students are expected to abide by the code of conduct of students throughout this course. Academic dishonesty, including cheating, fabrication, and plagiarism will not be tolerated and will attract disqualification of marks or values. It is expected from students to do all the assignments and activities they are supposed to accomplish. Students are required to submit and present the assignments provided according to the time table indicated. Teachers give directions and instruction about assignments and other responsibilities of students. The mode of delivery shall encourage active participation of students. Minimum of 85 % attendance during lecture hours; and 100 % attendance during Tutorial/Practical/Laboratory sessions, except for some unprecedented mishaps (wherever applicable)

Class activities will vary day to day, ranging from lectures to discussions. Students are appreciated to ask any question at any moment in class and during consultation periods. Cell phones MUST be **turned off** before entering the class as they are disruptive and annoying to the class

- **Remark: Ground Rules set in class**
    1. *Coming late and missing class is forbidden.*
    2. *Course must be covered on time.*
    3. *Denying instructor academic course order is prohibited.*
    4. *Any disrespect or discourage act is not appreciated.*
    5. *Students and instructor evaluation must be fair.*
    6. *Begging mark is seriously banned.*
    7. *Cheating and deceiving in any circumstance is illicit.*

I. References

1. Computer-aided pattern design and product development by Alison Beazely& Terry Bond
2. Grafis-Software Dr. Kerstin Friedrich GbR, Viersen, Germany 6th revised edition of chapters 1 to 10
3. Pattern Cutting and making up: the professional approach, by Athen:eum Press Ltd. Gateshead, Tyne & \Veal'
4. Concept of pattern grading, by carolyn L. Moore
5. Richpeace Garment CAD System, Garment CAD V8 user manual

J. Approved by:

Tsegaye Melaku	_____
Course Manager	Signature
Mohammed Alebachew	_____
Program Head	Signature
Tsegaye Melaku	_____
Teaching-Learning Quality Manager	Signature