Course Syllabus

1. **Course Title:** CAD/CAM in Garment Industry
2. **Course Code:** CAAP342051
3. **Credit Units:** 3 (3/0/6) (3 units of theory/ 0 unit of practice/ 6 units of self-study)
   Duration: 15 weeks (3 hours of theory+0 hours of practice, and 6 hours of self-study per week)
4. **Course Instructors**
   1/ MSc. Nguyen Thanh Hau
   2/ MSc. Le Quang Lam Thuy

   3/ MSc. Mai Quynh Trang

   4/ Dr. Nguyen Tuan Anh
5. **Course Requirements**
   Prerequisite courses: Preparation of Garment Manufacturing
   Previous courses:
   Parallel courses: None
6. **Course Description**
   The module introduces the basic knowledge of CAD/CAM technology in general and the CAD application capability in the process of preparing production for the garment industry in particular. In addition, the module also guides people to learn how to apply and implement the functions of Accumark software system in pattern design and marker making, to meet the needs of real production deployment.
7. **Course Goals**

Go	Goal Description	ELOs	Scale
G1	Present concepts of CAD technology application to support design pattern and marker making	ELO-03	4
G2	Analyzing and evaluating the applicability of CAD software functions in the process of pattern design and marker making	ELO-06 ELO-08	5 4
G3	Teamwork, communication skills and reading comprehension of instructional manuals using CAD software in English.	ELO-10 ELO-11	4 3
G4	Apply functions in CAD software to provide appropriate design process for each specific style	ELO-14 ELO-17	5 4

8. **Course Learning Outcomes (CLOs)**

CLOs		CLO Description	ELOs	Scale
G1	CLO1	Select the applications of Accumark system to design pattern and marker in garment manufacturing processes	ELO-03	4
G2	CLO2	Explain the relationship among Explorer, Pattern Design and Marker Making in the process of setting up basic data	ELO-06	5
	CLO3	Analyze the advantages and disadvantages between functions of the software to select the appropriate design process.	ELO-08	4
G3	CLO4	Motive effective communication skills such as writing, graphics in the learning process	ELO-10 ELO-11	4 3
G4	CLO5	Evaluate the applicability of functions in Accumark software system to propose plans to build the design process and marker making suitable for each product.	ELO-14 ELO-17	5 4

9. **Learning Ethics**
   Students must do homework by themselves. If plagiarism is found students will get zero point.
10. **Course Content**

Week	Content	CLOs	Scale
1	*Chapter 1:* **Accumark software overview** *(3,0,6)*		
	A/ Content and pedagogical methods in class*: (3)* **Content:** Overview of CAD / CAM technology Structure of CAD / CAM system in the field of sewing Overview of Accumark software system **Pedagogical methods**: Presentation of lecture Discussion Làm mẫu	CLO1 CLO2	4 5
	B/ Self-study content: *(6)* Learn about the possibility of applying CAD / CAM technology in the garment industrial	CLO1	4
2-3	*Chapter 2:* **Set up and manage data** *(6,0,12)*		
	A/ Content and pedagogical methods in class*: (6)* **Content:** 2.1 Manage data with AccuMark Explorer software 2.2 Process of setting up basic data **Pedagogical methods**: Presentation of lecture Discussion Làm mẫu	CLO1 CLO2 CLO3	4 5 4
	B/ Self-study content: *(12)* List the basic data types set up in Accumark software system	CLO1 CLO2	4 5
4-9	*Chapter 3:* **Pattern Design System in Accumark software** *(18,0,36)*		
	A/ Content and pedagogical methods in class*: (18)* **Content:** 3.1 Overview of PDS design software (Pattern Design System) 3.2 Data management on PDS (Pattern Design System) 3.3 Design process of finished pattern 3.4 Design process of intermediate sizes 3.5 Process of designing semi-finished pattern 3.6 Modify the pattern **Pedagogical methods**: Presentation of lecture Discussion Làm mẫu	CLO1 CLO2 CLO3	4 5 4
	B/ Self-study content: *(36)* List and explain the actions taken for each specific function Analyze product structure to build a design process for semi-finished pattern for common products	CLO1 CLO5	4 5
10	*Chapter 3:* **Pattern Design System in Accumark software** *(3,0,6)*		
	A/ Content and pedagogical methods in class*: (3)* **Content:** 7 Digitize samples Introducing digital station. Process of digitize Review digitized pattern 8 Modify digitize processing	CLO1 CLO5	4 5

	Pedagogical methods: Presentation of lecture Discussion Làm mẫu		
	B/ Self-study content: *(6)* Practice digitizing sample shirt products	CLO1 CLO5	4 5
11-12	*Chapter 4:* **Marker Making software** *(6,0,12)*		
	A/ Content and pedagogical methods in class: *(6)* **Content:** 4.1 Identify the marker making data Model Editors Lay limit Editors Annotation Editors Order Editors Process Oder **Pedagogical methods**: Presentation of lecture Discussion Làm mẫu	CLO1 CLO2 CLO3	4 5 4
	B/ Self-study content: *(12)* Do exercises on setting up data Model, Lay Limits, Annotation, Order	CLO1 CLO5	4 5
13-15	*Chapter 4:* **Marker Making software** *(9,0,18)*		
	A/ Content and pedagogical methods in class: *(9)* **Content:** 4.1 Overview of the Maker Making software 4.2 Functions that support the marker making process **Pedagogical methods**: Presentation of lecture Discussion Làm mẫu	CLO4 CLO5	4 5
	B/ Self-study content: *(18)* Review the knowledge of the marker making	CLO3	4

11. Learning Resources

- Textbooks:
1. Nguyen Thanh Hau. Textbook of CAD in Apparel. HCMC National University Press, 2017.

- References:
1. Gerber Garment Technology – Data Management – USA, 2003;
2. Gerber Garment Technology – Pattern Design – USA, 2003;
3. Gerber Garment Technology – Marker Making – USA, 2003.

12. Student Assessment

- Grading scale: **10**
- Assessment plan:

Type	Content	Timeline	Assessment method	CLOs	Rate (%)
Formative Assigments					**50**
Ex#1	Create the Rule table for shirt style according to the measument worksheet	Week 3	Homework	CLO1 CLO2 CLO4	10
Ex#2	Define the complete design and	Week 9	Homework	CLO2	20

	grading process and for a specific product			CLO3 CLO5	
Ex#3	AccuMark software analysis and selection of functions when deploying production preparation process.	Week 12	Exercise	CLO4	20
Final exam					**50**
	Covering contents of all the important course outcomes.		Essay	CLO1 CLO2 CLO3 CLO4 CLO5	50
Total					**100**

CLOs	Ex#1	Ex#2	Ex#3	Final assay
CLO1	X			X
CLO2	X	X		X
CLO3		X		X
CLO4	X		X	X
CLO5		X		X

13. Date of first approval: June 15, 2018

14. Approved by

Dean	Head of Department	Compiler
Vu Minh Hanh, M.Ed	**Nguyen Ngoc Chau, PhD**	**Nguyen Thanh Hau, M.Ed**

15. Date and Up-to-date content

| | Head of Department:

Dr. Nguyen Ngoc Chau |
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