

Model Curriculum

1. Advance Pattern Maker (CAD/CAM)

SECTOR: APPAREL, MADE-UP'S AND HOME FURNISHING
SUB-SECTOR: Apparel
OCCUPATION: Advance Pattern Making (CAD/CAM)
REF ID: AMH/Q1101
NSQF LEVEL: 5



Certificate

1. CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

Is hereby issued by the
APPAREL MADE-UPS HOME FURNISHING SECTOR SKILL COUNCIL

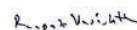
For the
MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: "**Advance Pattern Maker (CAD/CAM)**" **QP**
No. '**AMH/Q1101 NSQF Level 5**

Date of Issuance: **December 15, 2016**

Valid up to: **December 15, 2017**

* Valid up to the next review date of the Qualification Pack



Dr. Roopak Vasishtha
Chief Executive Officer (Apparel
Made-ups Home Furnishing Sector
Skill Council)

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Advance Pattern Maker (CAD/CAM)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Advance pattern Maker (CAD/CAM)”, in the “Apparel, Made Ups and Home Furnishing” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Advance pattern Maker (CAD/CAM)		
Qualification Pack Name & Reference ID.	Advance pattern Maker (CAD/CAM); AMH/Q1101		
Version No.	1.0	Version Update Date	As per QP
Pre-requisites to Training	Graduate with training in CAD/CAM, preferably		
Training Outcomes	<ul style="list-style-type: none"> • Pattern Development through CAD/CAM) • Maintenance of work area, machinery tools and equipments • Maintain health, safety and security at work place 		

This course encompasses 3 out of 3 National Occupational Standards (NOS) of “Advance pattern Maker (CAD/CAM)” Qualification Pack issued by “APPAREL, MADE-UPS AND HOME FURNISHING SECTOR SKILL COUNCIL”.

Sr. No	Module	Key Learning Outcomes	Equipment Required
1	Introduction and Orientation Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module	<ul style="list-style-type: none"> Know about the Apparel Sector in India Understand and follow roles and responsibilities of an Advance Pattern Maker (CAD/CAM) 	White/Black Board, Marker And Duster, Computer And Computer Peripherals Projector (Optimal)
2	Pattern Development through (CAD/CAM) Theory Duration (hh:mm) 70:00 Practical Duration (hh:mm) 215:00 Corresponding NOS Code AMH/N1101	<ul style="list-style-type: none"> Downloading and organizing information obtained by designer/buyer Analyzing specific information and translating according to company procedure Coordinate with merchandiser to ensure clarity of information and resolve any possible misinterpretations Draft the pattern on the CAD software as per specification given Digitize the manual pattern on the CAD software, if applicable, as per specification given Adjust the pattern specifications as per the standard and allowances required Perform size wise grading of patterns as provided in the BOM(Bill of Material) Incorporate shrinkage in pattern grading Determine the cut ratio plan Perform the most efficient marker(lay planning) according to the configuration intended Set Parameters on CAM as per required output Ensure the design output is cut and hand over to the next department Ensure the work is saved as a back-up before shutting down the CAD machine Take printout of mini marker to be handed over to the merchandiser, for reference 	White/Black Board+Marker/Chalk +Duster Computer With Computer Table And Chair and peripherals pattern making software marker making software Digitizer Cello tape Plotter Plotter paper Plotter pen Plotter ink Scanning equipment Style sheet (provided by buyer) measurement chart /Grading chart (mentioned in BOM) Garment Sample Production & Ready Pattern Types Of Scales,normal straight big ruler,hip curve,leg curve, L Scale, frenchcurve "measurement Ruler (inches on one side and millimetres on the other side made of Plastic, Acrylic

		<ul style="list-style-type: none"> • Shut down, after use, the CAD/CAM system carefully and in accordance with company instructions. • Principles of the CAD/CAM systems. 	<p>or metal)" measuring tape Basic stationary Pattern Making Paper Pattern plastic roll (used to create long lasting, durable, and flexible patterns) Tracing Paper Kraft Underlay Paper(qnt may vary) Kraft Pattern Paper (used to prepare initial pattern,qnt may vary) Dotted marking paper (qnt may vary) Push pins shears Scissors Fabric Cutting Pattern hooks (The quantity may vary as per requirement) Pattern Notchers / Notch Cutters Pattern Punches (The quantity may vary) underarm sleeve rules Student'S Chair With Table Arm Teacher'S Table & Chair Pattern Table cutting table Stool Students Notes Dustbin Samples(garments, made ups and home furnishing) Fire Extinguisher</p>
3	<p>Maintenance of work area, machinery ,tools and equipments</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code AMH/N1102</p>	<ul style="list-style-type: none"> • Maintain tools and equipment's and handle them safely • Use materials to minimize waste • Carryout running maintenance within agreed schedules • Carry out maintenance and/or cleaning within one' s responsibility • Make sure that the correct machine guards are in place • Work in a comfortable position with the correct posture • Use cleaning equipment and methods appropriate for the work to be carried out • Dispose of waste safely in the designated location • Store cleaning equipment safely after use • Carryout cleaning according to schedules and limits of responsibility 	<p>Same as above tools and equipment as stated above</p>

4	<p>Maintain health, safety and security at work place</p> <p>Theory Duration (hh:mm) 08:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code AMH/N0103</p>	<ul style="list-style-type: none"> • Comply with health and safety related instructions applicable to the workplace • Use and maintain personal protective equipment as per protocol • Maintain a healthy lifestyle and guard against dependency on intoxicants • Follow environment management system related procedures • Identify and correct if possible) malfunctions in machinery and equipment • Report any service malfunctions that cannot be rectified • Store materials and equipment in line with manufacturer's and organizational requirements • Safely handle and move waste and debris • Minimize health and safety risks to self and others due to own actions • Seek clarifications, from supervisors or other authorized personnel in case of perceived risks • Monitor the workplace and work processes for potential risks and threats • Carryout periodic walk-through to keep work area free from hazards and obstructions, if assigned • Report hazards and potential risks/threats to supervisors or other authorized personnel • Participate in mockdrills/ evacuation procedures organized at the workplace • Undertake firstaid, fire-fighting and emergency response training, if asked to do so • Take action based on instructions in the event of fire, • Follow organization procedures 	Same as above
5	<p>Soft Skills</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 02:00</p> <p>Bridge Module</p>	<ul style="list-style-type: none"> • Understand importance of effective communication • Communicate effectively with others • Identify and follow personal grooming and hygiene • Follow organization procedures and maintain personal health and hygiene and avoid habits like ghutka, tobacco etc. • Interact effectively in a group • Manage time effectively • Understand importance of resume and prepare your resume • Prepare for interviews 	White/Black Board, Marker And Duster, Computer And Computer Peripherals Projector (Optional)

6	<p>First aid and CPR</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 07:00</p> <p>Bridge Module</p>	<ul style="list-style-type: none"> Identify methods of first aid Undertake basic first aid, Undertake basic CPR 	First Aid Kit, CPR
	<p>Theory Duration 100:00</p> <p>Practical Duration : 260Hrs</p> <p>Total Duration 360Hrs</p>		

Total Course Duration: **360 Hours**

(This syllabus/ curriculum has been approved by APPAREL, MADE-UP'S AND HOME FURNISHING SECTOR SKILL COUNCIL)

Trainer Prerequisites for Job role: “Advance Pattern Maker (CAD/CAM)” mapped to Qualification Pack: “AMH/Q1101, version 1.0”

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with Qualification Pack “AMH/Q1101”
2	Personal Attributes	The candidate should have aptitude for conducting training, pre /post work to ensure competent, employable candidates at the end of training. Strong communication skills, interpersonal skills, ability to work as team; diligent and is passionate for maintaining the quality in content and training delivery methodology. Candidate should have basic understanding of English language; however this should not be a restrictive criterion as long as the candidate is willing and open to learn. He/she must be able to speak, read and write in the local language.
3	Minimum Educational Qualifications	<ul style="list-style-type: none"> • The candidate should be 10th pass with minimum six years supervisory experience in relevant trade • Certificate in relevant trade of minimum 6 months duration • Diploma in the relevant trade of minimum 1 year duration • ITI in relevant trade • Graduation in relevant trade
4a	Domain Certification	Certified for Job Role: “Advance Pattern Maker (CAD/CAM)” mapped to QP: “AMH/Q1101”, version 1.0. Minimum accepted score as per SSC guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402” with scoring of minimum 80%.
5	Experience	<ul style="list-style-type: none"> • The candidate should be 10th pass with six years supervisory experience in relevant trade • Certificate of minimum six months duration in relevant trade with minimum 4 years of work experience in relevant trade • Diploma of minimum 1 year duration in the relevant trade with Minimum 2 years of work experience in relevant trade • ITI in relevant trade with minimum 2 years of work experience in relevant trade • Graduation in relevant trade with minimum 2 years of work experience in relevant trade, • He should be able to communicate in English and local Language. He should have knowledge of equipment, tools, Material, Safety, Health & Hygiene.

Annexure: Assessment Criteria

Assessment Criteria for Pressman	
Job Role	Advance Pattern Maker (CAD/CAM)
Qualification Pack	AMH/Q1101, version 1.0
Sector Skill Council	APPAREL, MADE-UP'S AND HOME FURNISHING

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% aggregate in QP
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Assessable Outcome	Assessment Criteria	Marks Allocation				
		Total Marks	Out Of	Theory	Skills Practical	Viva
1.AMH/N1101 Pattern development through (CAD/CAM)	PC1 .Downloading and organizing information obtained by designer/buyer	150	10	2	6	2
	PC2 Analysing specific information and translating according to company procedure		15	9	4	2
	PC3. Coordinate with merchandiser to ensure clarity of information and resolve any possible misinterpretations		12	4	6	2
	PC4. Draft the pattern on the CAD software as per specification given		15	3	10	2
	PC5. Digitize the manual pattern on the CAD software, if applicable, as per specification given		15	2	12	1
	PC6. Adjust the pattern specifications as per the standard and allowances required		6	2	2	2
	PC7. Perform size wise grading of patterns as provided in the BOM(Bill of Material)		10	2	7	1
	PC8. Incorporate shrinkage in pattern grading		9	1	7	1
	PC9. Determine the cut ratio plan		9	2	5	2
	PC10. Perform the most efficient marker(lay planning) according to the configuration intended		15	2	10	3
	PC11. Set Parameters on CAM as per required output		7	1	4	2
	PC12. Ensure the design output is cut and hand over to the next department		7	2	4	1
	PC13. Ensure the work is saved as a back-up before shutting down the CAD machine		5	1	3	1
	PC14. Take printout of mini marker to be handed over to the merchandiser, for reference		10	1	7	2
	PC15. Shut down, after use, the CAD/CAM system carefully and in accordance with company instructions		5	1	1	3
	Total	150	35	88	27	
	PC1.Prepare and organize work		5	1	3	1

2. AMH/N1102 Maintenance of work area, machinery tools and equipments	PC2. Use correct handling procedures.	70	9	2	5	2
	PC3. Work in comfortable position with correct posture		5	1	3	1
	PC4. Deal with work interruptions		9	3	5	1
	PC5. Maintain tools and equipment		7	2	4	1
	PC6. Carry out running maintenance within agreed schedules		5	1	3	1
	PC7. Carry out maintenance and/or cleaning within one's responsibility		4	1	2	1
	PC8. Report unsafe equipment and other dangerous occurrences		7	2	3	2
	PC9. Use cleaning equipment and methods appropriate for the work to be carried out		4	1	2	1
	PC10. Carry out cleaning according to schedules and limits of responsibility		3	1	1	1
	PC11. Request for upgrading of system or softwares when required for effective working		4	1	2	1
	PC12. Always a backup file to be maintained when working on various design softwares		4	1	2	1
	PC13. All soft copies of design work to be maintained in files as well for future reference		4	1	2	1
			Total	70	18	37
3. AMH/N0103 Maintain health, safety and security at work place	PC1. Comply with health and safety related instructions applicable to the workplace		5	1	3	1
	PC2. Use and maintain personal protective equipment as per protocol		10	1	8	1
	PC3. Carry out own activities in line with approved guidelines and procedures		5	2	2	1
	PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants		5	3	1	1
	PC5. Follow environment management system related procedures		5	2	2	1
	PC6. Identify and correct (if possible) malfunctions in machinery and equipment		5	1	2	2
	PC7. Report any service malfunctions that cannot be rectified		5	1	2	2
	PC8. Store materials and equipment in line with manufacturer's and organizational requirements		5	1	3	1

	PC9. Safely handle and move waste and debris	100	5	1	3	1
	PC10. Monitor the workplace and work processes for potential risks and threats		5	2	2	1
	PC11. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		5	2	2	1
	PC12. Report hazards and potential risks/ threats to supervisors or other authorized personnel		7	1	4	2
	PC13. Minimize health and safety risks to self and others due to own actions		6	1	3	2
	PC14. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks		5	1	3	1
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		5	2	3	1
	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		5	1	2	2
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		7	2	4	1
	PC18. Follow organization procedures for shutdown and evacuation when required		5	2	1	2
	Total	100	27	50	23	
Grand Total			320	80	175	65



Apparel, Made-Ups & Home Furnishing Sector Skill Council
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