

Model Curriculum

1. Roto Artist

SECTOR: Media and Entertainment

SUB-SECTOR: Film, Television, Animation, Advertising

OCCUPATION: Roto Artist

REF ID: MES/Q3504, V1.0

NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

Media and Entertainment Skill Council

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**Roto Artist**' QP No. '**MES/Q3504 NSQF**
Level 4'

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

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

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



Authorized Signatory
Media and Entertainment Skill Council

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Roto Artist

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Roto Artist”, in the “Media And Entertainment” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Roto Artist		
Qualification Pack Name & Reference ID. ID	MES/ Q 3504,		
Version No.	1.0	Version Update Date	As per QP
Pre-requisites to Training	Class 12 th		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none"> • Understand requirements and plan workflow • Manage equipment & material • Rotoscoping footage • Maintain workplace health and safety 		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Roto Artist” Qualification Pack issued by “Media and Entertainment Skill Council”.

S. No	Module	Key Learning Outcomes	Equipments
1	Introduction and Orientation Theory 1 hours Practical 0 hours	<ul style="list-style-type: none"> Importance of media and entertainment Role and responsibility of Roto Artist Technical terms associated animation 	Laptop, white board, marker, projector
2	Understand Requirements and Plan Work flow Theory 10 hours Practical 15 hours Corresponding NOS MES / N3501	<ul style="list-style-type: none"> Understand the creative and technical requirements and expectations in terms of quality of deliverables and timelines, as necessary to the role Determine key post-production processes that would be involved to produce the desired outcome and chart-out the process workflow, as per role • Key processes could include computer-generated effects, colour grading, digital intermediate, screen conversion, rendering, rotoscoping, keying, match-moving and compositing Translate, or support senior personnel in translating, expectations into effort estimates for each process PC4. Prepare a work plan, for oneself or other team members if appropriate, keeping in mind the impact on the production budget, timelines and technical viability 	Laptop, white board, marker, projector, Software (e.g. Silhouette, Nuke, Fusion, Combustion, Shake Premier, PF track, After Effects, Renderman, Quantel, Smoke, Flame, Avid, 3DS Max and FCPetc.)
3	Manage Equipment and Material Theory 10 hours Practical 15 hours Corresponding NOS MES / N 3502	<ul style="list-style-type: none"> Gather raw footage/material and select, or assist in selecting, relevant material that can be used for post-production PC2. Ingest, or support in ingesting, the footage and keep the material ready for the post-production process Ensure that back-ups for interim work-products are saved in the appropriate file formats, and take responsibility/manage others' interim work-products as relevant to the role Ensure, or supervise others in ensuring, that final work-products are prepared in appropriate file formats (such as mp4, avi, wmv, mpg and mov), appropriate mediums (such as DVD, film, tape and digital), and are compatible with intended distribution/exhibition mediums PC5. Clear logs/data and keep the software and equipment ready for future use 	Laptop, white board, marker, projector, Software (e.g. Silhouette, Nuke, Fusion, Combustion, Shake Premier, PF track, After Effects, Renderman, Quantel, Smoke, Flame, Avid, 3DS Max and FCPetc.)
4	Rotoscoping Footage Theory	<ul style="list-style-type: none"> Understand rotoscoping objectives, which could include: <ul style="list-style-type: none"> Tracing live action images for Animation Creating depth maps for Stereo 	Laptop, white board, marker, projector, Software (e.g. Silhouette, Nuke, Fusion, Combustion, Shake

	<p>30 hours</p> <p>Practical 35 hours</p> <p>Corresponding NOS MES / N 3506</p>	<p>conversion</p> <ul style="list-style-type: none"> • Removing faults/wires in live action footage • Creating mattes for visual effects • Colour grading for specific objects/frames • Use the software to break the content down into individual frames in accordance to requirements • Ensure that the work-products meet rotoscoping objectives and quality standards and are ready for compositing • Respond positively to feedback and changes in creative requirements 	<p>Premier, PF track, After Effects, Renderman, Quantel, Smoke, Flame, Avid, 3DS Max and FCPetc.)</p>
5	<p>Produce 2D Animation</p> <p>Theory 20 Hours</p> <p>Practical 15 hours</p> <p>Corresponding NOS Bridge</p>	<ul style="list-style-type: none"> • Follow the storyboard for composition i.e. positioning of the character with respect to the background and camera to create the desired animation • Draw/source key frame drawings to establish a reference point for strong poses Incorporate audio/music assets • Create shadows for animation using pre-defined lighting keys • Bring assets together to produce sequences and scenes/shots as per requirements and ensuring continuity • Ensure that the hook-up/transition from one scene to another is done properly • How to work with layers and get a good perspective view • Work effectively within the team and with other departments, namely, assets, lighting and effects • Critically review animation produced, keeping in mind the creative and design specifications and producer brief • Refine the output based on deviations observed and/or modifications required within requisite timelines • Ensure that the work-products meet quality standards (so that they can be approved with minimum iterations) and are delivered within the requisite timelines • How to achieve the required output targets Supervisors • Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use • Train junior artists to improve their quality ability to deliver within given timelines • Apply principles of design, 2D animation and film-making to create sequences and scenes/shots • Apply varied techniques and styles based on the requirement • Use graphics and animation software to produce in-between poses for animation 	<p>Laptop, white board, marker, projector, Animation Software (maya etc.)</p>

6	<p>Produce 3D Animation</p> <p>Theory 20 hours</p> <p>Practical 15 hours</p> <p>Corresponding NOS Bridge</p>	<ul style="list-style-type: none"> • Apply principles of design, 3D animation and film-making to create sequences and scenes/shots • Follow the storyboard for composition i.e. positioning of the character model with respect to the background and camera to create the desired animation • Animate expressions and lip movements to match dialogues and sound • Communicate requirements to camera and lighting for motion capture, where required • Work with motion capture data received from the motion/ performance capture studio (clean up the data and map animation data to 3D models) • Prepare a prototype work product/pre-visualisation for review • Refine the product until the required creative effect is achieved • Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use • Work effectively within the team and with other departments, namely, design, modeling/rigging, texturing, editing, rendering and compositing • Critically review animation produced, keeping in mind the creative and design specifications and producer brief • Refine the output based on deviations observed and/or modifications required within requisite timelines • Apply 3D animation techniques including realistic 3D animation (motion capture + key frame animation) e.g. in movies such as Beowulf, Avatar and Lord of the Rings, semi-realistic e.g. in movies such as little krishna and brave, toon animation e.g. kung-fu panda, simulation of traditional & stop motion techniques e.g. advertisements such as vineta cucini, amaron battery etc. • Produce 3D movements and performance required using 3D animation software within the agreed timelines 	<p>Laptop, white board, marker, projector, Animation Software (maya etc.)</p>
7	<p>Produce Stop Motion Animation</p> <p>Theory 20 hours</p> <p>Practical 15 hours</p> <p>Corresponding NOS Bridge</p>	<ul style="list-style-type: none"> • Understand requirements including the way the characters will act/move in accordance to the storyboard • Move characters and construct/compose a shot in accordance to the script and storyboard as a prototype • Animate stop motion characters (puppets or models) in accordance to the script and directors instructions • Contribute creative ideas during the animation process • Apply stop motion animation techniques including traditional frame by-frame 	<p>Laptop, white board, marker, projector, Animation Software (maya etc.)</p>

		capture, Clay motion and cut-out using computer-generated tools	
8	Maintain workplace health and safety Theory 05 hours Practical 05 hours Corresponding NOS MES / N 0104	<ul style="list-style-type: none"> Understand and comply with the organisation's current health, safety and security policies and procedures Understand the safe working practices pertaining to own occupation Understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises Participate in organization health and safety knowledge sessions and drills Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms Identify aspects of your workplace that could cause potential risk to own and others health and safety Ensure own personal health and safety, and that of others in the workplace through precautionary measures Identify and recommend opportunities for improving health, safety, and security to the designated person Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected Follow organisation's emergency procedures for accidents, fires or any other natural calamity in case of a hazard Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority 	Laptop, white board, marker, projector, Health and Safety Signs and policy
9	Communication and Professional Skills Theory 04 hours Practical 05 Hours Corresponding NOS Bridge	<ul style="list-style-type: none"> Report output, efforts and schedule taken to complete the allotted task Read and understand the script and character descriptions Read the work plan and production schedule to ensure that progress is in line Suggest creative ideas to the Director and Animation supervisor Communicate clearly and collaborate effectively with colleagues who are working with the previous or next scenes/shots Understand the modifications required from the Director, Animation supervisor and Producer Discuss the challenges faced during production and discuss ways to address 	Laptop, white board, marker, projector

		<ul style="list-style-type: none"> • such challenges in future projects • Make decisions in order to be able to work collectively and independently, where required • Understand shot break up and plan effort and time required for each element of the shot • How to plan and prioritise individual timelines and deliver on schedule • Work effectively as a member of the team and help realise overall timelines • Prioritise work-products and tasks based on requirements • Address comments and make changes • Seek assistance and guidance from the Director, Art Director and Supervisors, where required • Improve work-products and performance based on feedback received and through self-appraisal • Understand the perspective of Client, Director, Art Director and Supervisors • and apply it to the animation being produced 	
	Total Duration 240 hrs Theory 120 Hours Practical 120 Hours		

Grand Total Course Duration: **240 Hours**

(This syllabus/ curriculum has been approved by Media and Entertainment Skill Council)

Trainer Prerequisites for Job role: “Roto Artist” mapped to Qualification Pack: “MES/ Q3504, 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 “Q3504”
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	Graduate/ ITI/Diploma/AMT, from any other polytechnic/ reputed institute in the core subject
4a	Domain Certification	Certified for Job Role: “Roto Artist” mapped to QP: “MES/Q3504”, 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	The candidate should have a minimum of 3 years of work experience in the same job role. 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 Roto Artist	
Job Role	Roto Artist
Qualification Pack	MES/Q3504, version 1.0
Sector Skill Council	Media and Entertainment Skill Council

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

Assessment Outcome	Assessment criteria for outcomes		Marks Allocation		
		Total mark	Out of	Theory	Skills Practical
MES/ N 3501 (Understand requirements and plan workflow)	PC1. Understand the creative and technical requirements and expectations in terms of quality of deliverables and timelines	100	30	15	50
	PC2. Determine key post-production processes that would be involved to produce the desired outcome and chart-out the process workflow		30	15	
	PC3. Translate, or support senior personnel in translating, expectations into effort estimates for each process		20	10	
	PC4. Prepare a work plan, for oneself or other team members if appropriate, keeping in mind the impact on the production budget, timelines and technical viability		20	10	
		Total	100	50	50
Assessment Outcome	Assessment criteria for outcomes		Marks Allocation		
		Total mark	Out of	Theory	Skills Practical
MES/ N 3502 (Manage equipment & material)	PC1. Gather raw footage/material and select relevant material that can be used for post-production	100	20	10	50
	PC2. Ingest the footage/keep the material ready for the post-production process		20	10	
	PC3. Save back-ups for interim work-products in the appropriate file formats		20	10	
	PC4. Ensure final work-products are prepared in appropriate file formats (such as mp4, avi, wmv, mpg and mov) and appropriate medium (such as DVD, film, tape and digital) compatible with intended distribution/exhibition mediums		20	10	
	PC5. Clear logs/data and keep the software and equipment ready for future use		20	10	
		Total	100	50	50
Assessment Outcome	Assessment criteria for outcomes		Marks Allocation		
		Total mark	Out of	Theory	Skills Practical
MES/ N 3506 (Rotoscoping footage)	PC1. Understand rotoscoping objectives	100	30	15	50
	PC2. Use the software to break the content down into individual frames in accordance to requirements		30	15	
	PC3. Ensure that the work-products meet rotoscoping objectives and quality standards and are ready for compositing		40	20	
		Total	100	50	50

			Marks Allocation		
Assessment outcomes	Assessment criteria for outcomes	Total mark	Out of	Theory	Skills Practical
MES/ N 0104 (Maintain workplace health and safety)	PC1. Understand and comply with the organisation's current health, safety and security policies and procedures.	100	10	5	50
	PC2. Understand the safe working practices pertaining to own occupation.		10	5	
	PC3. Understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises.		5	3	
	PC4. Participate in organization health and safety knowledge sessions and drills.		5	2	
	PC5. Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency.		10	5	
	PC6. Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms.		10	5	
	PC7. Identify aspects of your workplace that could cause potential risk to own and others health and safety.		10	5	
	PC8. Ensure own personal health and safety, and that of others in the workplace through precautionary measures.		10	5	
	PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person.		5	3	
	PC10. Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected.		10	5	
	PC11. Follow organisation's emergency procedures for accidents, fires or any other natural calamity in case of a hazard.		10	5	
	PC12. Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority.		5	2	
	Total		100	50	50