

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR MEDIA AND ENTERTAINMENT INDUSTRY

### What are Occupational Standards(OS)?

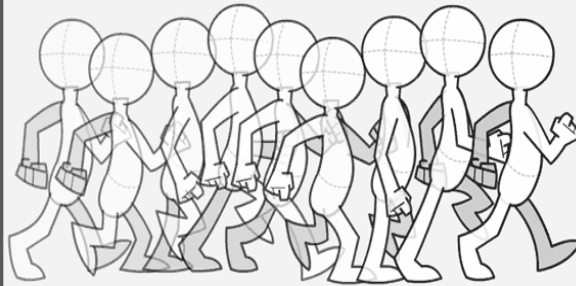
- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

#### Contact Us:

Media & Entertainment  
Skills Council

E-mail:

[info@mescindia.org](mailto:info@mescindia.org)



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## Introduction

### Qualifications Pack-Animator

**SECTOR:** MEDIA AND ENTERTAINMENT

**SUB-SECTOR:** Animation, Gaming

**OCCUPATION:** Animator

**REFERENCE ID:** MES/ Q 0701

**ALIGNED TO:** NCO 2015- 2166.0201

**Animator** in the Media & Entertainment Industry is also known as Flash Animator/ 3D Animator/ Flash Shadow Artist

**Brief Job Description:** Individuals at this job need to refer to concept artwork prepared by animation artists to produce animated sequence of 2D/3D images using animation software

**Electives1:** Individual after this NOS will produce 2D animated sequences using 2D animation software's.

**Electives2:** Individual after this NOS will produce 3D animated sequences using 3D animation software's.

**Electives3:** Individual after this NOS will produce Stop motion animation.

**Personal Attributes:** This job requires the individual to know the fundamentals of life drawing including human anatomy, emotions, actions and expressions. The individual must know and keep updated on graphics and animation software and apply principles of design, animation and film-making to create animation sequences. The individual must be able to collaborate and work effectively as a member of a team to deliver work-products within requisite timelines.

<b>Qualifications Pack Code</b>	<b>MES/ Q 0701</b>		
<b>Job Role</b>	<b>Animator</b> This job role is applicable in both national and international scenarios		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Media and Entertainment</b>	<b>Drafted on</b>	<b>16/07/13</b>
<b>Sub-sector</b>	<b>Animation, Gaming</b>	<b>Last reviewed on</b>	<b>20/03/18</b>
<b>Occupation</b>	<b>Animator</b>	<b>Next review date</b>	<b>20/03/20</b>
<b>NSQC Clearance on</b>	<b>28/09/2015</b>		

<b>Job Role</b>	<b>Animator</b>
<b>Role Description</b>	Producing a sequence of 2D/3D images using animation software
<b>NSQF level</b>	4
<b>Minimum Educational Qualifications</b>	Class XII
<b>Maximum Educational Qualifications</b>	Not Applicable
<b>Prerequisite License or Training (Suggested but not mandatory)</b>	Study of fundamentals & principles of Animation Training on 2D/3D Software Tools Course in Fine Arts Animation foundation course covering body mechanics, advance acting skills etc.
<b>Minimum Job Entry Age</b>	18 years
<b>Experience</b>	0-2 years Trainee Animator/ Junior Animator 1-3 years Animator 4-6 years Lead Animator
<b>Applicable National Occupational Standards (NOS)</b>	<p><b>Compulsory:</b></p> <ol style="list-style-type: none"> <li><a href="#">MES / N 0701 (Understand Animation Requirements)</a></li> <li><a href="#">MES / N 0702 (Conceptualize Creative Ideas for Production)</a></li> <li><a href="#">MES / N 0703 (Plan Tools and Workflow)</a></li> <li><a href="#">MES / N 0104 (Maintain workplace health and safety)</a></li> </ol> <p><b>Electives (mandatory to select at least one):</b></p> <ol style="list-style-type: none"> <li><a href="#">MES / N 0704 (Produce 2D Animation)</a></li> <li><a href="#">MES / N 0705 (Produce 3D Animation)</a></li> <li><a href="#">MES / N 0706 (Produce Stop Motion Animation)</a></li> </ol>
<b>Performance Criteria</b>	As described in the relevant OS units

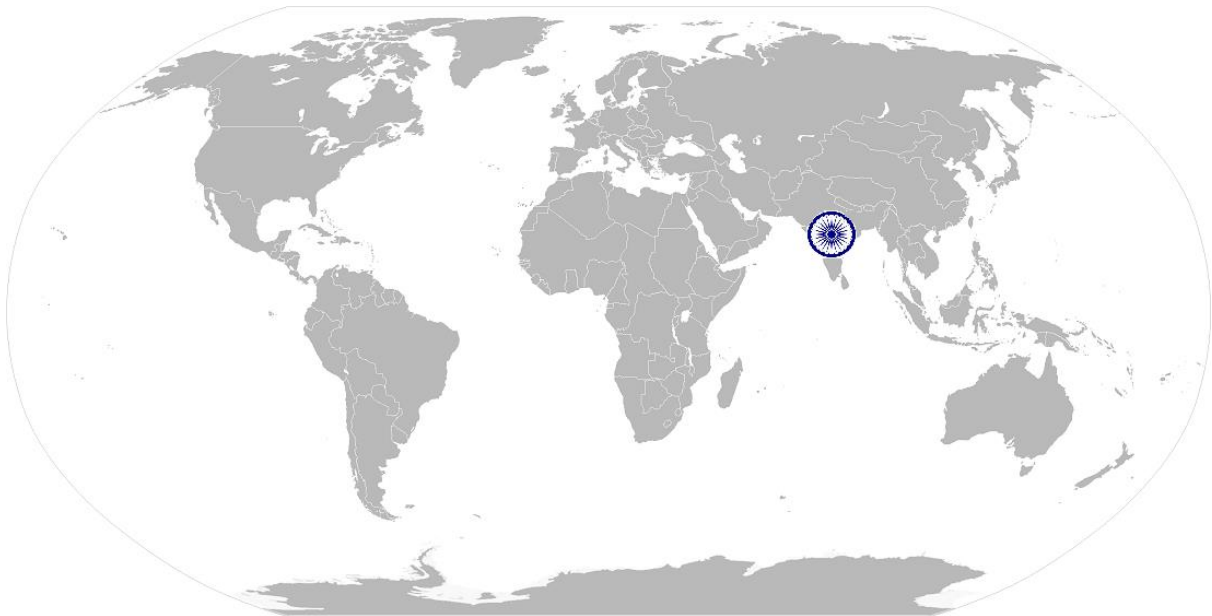
Definitions	Keywords /Terms	Description
	Animatic	Animatic is a story-board for animation which includes an series of images edited together with dialogues and sound
	Budget	Budget is an estimate of the total cost of production that may include a break-up of cost components
	Compositing	Compositing is the process of combining layers of images/elements into a single frame
	Composition	Composition is the positioning of the character with respect to the background and camera
	Creative Brief	Creative brief is a document that captures the key questions that serve as a guide for the production including the vision, objective of the project, target audience, timelines, budgets, milestones, stakeholders etc.
	Key Frame	Key Frames are the key poses, usually the start and end poses for a particular animation sequence
	Modeling	Modeling is the process of creating three-dimensional models for animation using a specialised software application.
	Rendering	Rendering is the process of converting three-dimensional models into two-dimensional images with 3D effects
	Rigging	Rigging is the process of adding joints to a static three-dimensional model to aid movement during posing
	Timelines	Timelines is a listing of dates by which the production milestones/stages need to be completed
	Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
	Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
	Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry
	Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
	Sub-functions	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
	Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
	Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task

National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack(QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard, which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

Acronyms

Keywords /Terms	Description
NOS	National Occupational Standard(s)
QP	Qualifications Pack
NSQF	National Skill Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework

# National Occupational Standard



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## Overview

**This unit is about understanding the project brief, product requirements and methodology/technique(s) to be used for production**

MES/ N 0701

## Understand Animation Requirements

National Occupational Standard

<b>Unit Code</b>	MES/ N 0701
<b>Unit Title (Task)</b>	<b>Understand Animation Requirements</b>
<b>Description</b>	This OS unit is about understanding the project brief, product requirements and methodology/technique(s) to be used for production
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Understanding production requirements</li> <li>• Understanding the type of end-product that needs to be produced</li> <li>• Selecting the animation technique(s) to be used</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Understanding production requirements	To be competent, the user/individual on the job must be able to: PC1. Understand, clarify and agree on the project brief from the Director, Art Director and Supervisors. This could include the following: <ul style="list-style-type: none"> <li>• Creative objectives, as appropriate to the role</li> <li>• Concept/style of animation and the desired look</li> <li>• Target audiences</li> <li>• Project timelines and constraints</li> </ul>
Understanding the type of end-product that needs to be produced	PC2. Understand various parameters of the end-product that would influence production requirements (e.g. duration, style, number of characters, subject and storyline, culture and period the story is based in, effects required, format, aspect ratio, music etc.) PC3. Understand the treatment of the output that needs to be produced, the volume of the final output and key deliverables PC4. Understand the shot sequence (high-level) and continuity/consistency required
Selecting the animation technique(s) to be used	PC5. Select an appropriate animation technique based on the output required, which could include: <ul style="list-style-type: none"> <li>• 2D animation: <ul style="list-style-type: none"> <li>• Cell animation (e.g. early episodes of Tom and Jerry (series))</li> <li>• Cut out animation (e.g. Charlie and Lola (series))</li> <li>• Limited animation (e.g. South Park, Empire Square (series))</li> </ul> </li> <li>• 3D Animation: <ul style="list-style-type: none"> <li>• Realistic 3D animation- motion capture + key frame animation (e.g. in films such as Beowulf, Avatar and Lord of the Rings' Gollum)</li> <li>• Semi-realistic 3D animation (e.g. films like little Krishna and Brave)</li> <li>• Toon 3D animation (e.g. films such as Kung-fu Panda)</li> <li>• Simulation of traditional &amp; stop motion techniques (e.g. advertisements such as Vineta Cucini, Amaron Battery etc.)</li> </ul> </li> <li>• Stop-motion animation</li> <li>• Others including VFX, stereo conversion</li> </ul>

MES/ N 0701

## Understand Animation Requirements

Knowledge and Understanding (K)	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. The objective/purpose that the end-product intends to achieve</li> <li>KA2. The needs and expectations of the producer/project sponsor</li> <li>KA3. The expectations of the Director, Art Director and Supervisor with respect to the process and techniques to be used</li> <li>KA4. Limitations on the time and resources and issues that might arise during production</li> <li>KA5. The animation process and technical pipeline to be followed for animation</li> <li>KA6. The format of the end-product and the medium on which it would be exhibited</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. The fundamentals and principles of animation</li> <li>KB2. The principles of animation, posing and character emotion</li> <li>KB3. The basic rules of animation including squash and stretch, anticipation, staging, straight action, pose-to-pose, follow-through, overlapping action, ease in ease out, exaggeration, timing, appeal and secondary action</li> <li>KB4. Life drawing including human anatomy, emotions, actions and expressions</li> <li>KB5. Production concepts and their applicability to each project</li> <li>KB6. The various techniques available for animating objects</li> <li>KB7. How to observe, act and emote</li> <li>KB8. The technical aspects of the job undertaken by other members of the production team (before and after the work of an animator)</li> <li>KB9. Applicability of various techniques to post production of each project</li> <li>KB10. Intellectual property rights to ensure that the end-product, elements, artwork etc. created is unique and does not infringe upon the rights of other products</li> </ul>
Skills (S) (Optional)	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> <li>SA1. Document the project brief that can serve as a reference document for circulation to the production team (Supervisor)</li> <li>SA2. Document decisions on the technique to be used and reasons thereof (Supervisor)</li> <li>SA3. Document other areas (e.g. requirements of the target audience, market, end-product, reference links, videos etc.) that may be relevant for the production team</li> <li>SA4. Document notes on the project brief, techniques and other useful information for personal use (team)</li> </ul>
	<b>Reading Skills</b>

MES/ N 0701

**Understand Animation Requirements**

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand the script and determine animation requirements (including specifics of the characters, country, culture etc.)</p> <p>SA6. Read about emerging techniques in animation and update skills accordingly</p> <p>SA7. Read and understand the comments given by the supervisor, director or customer</p> <p>SA8. Research the various types of end-products that have been produced and are available in the public domain</p>	
	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA9. Understand, clarify and agree on the project brief and parameters of the end-product with the Producer and Director</p> <p>SA10. Discuss and agree on the technique to be used with the Director and Art Director</p> <p>SA11. Communicate the project brief effectively to team members, other animators and members from various departments involved in the animation process (Supervisor)</p> <p>SA12. Clarify needs and communicate with clients (knowledge of English is preferred)</p>	
<b>B. Professional Skills</b>	<p><b>Decision making</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>SB1. Manage decision on suitable course of action</p>	
	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>SB2. Document creative and production requirements, for oneself or the wider team, in an organized manner</p> <p>SB3. Work effectively as a member of the team and help realise overall timelines</p> <p>SB4. Prioritise work-products and tasks based on requirements</p>	
	<p><b>Customer Centricity</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>SB5. check that the medium finalized/selected meets customer requirements</p>	
	<p><b>Problem Solving</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>SB6. Identify any issues that may arise during pre production or production and find solutions to address them</p>	
	<p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>SB7. Have a keen eye for detail and maintain an aesthetic sense towards the final output</p>	
	<p><b>Critical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. Understand the perspective of Client, Director, Art Director and Supervisors so as to critically evaluate and select appropriate animation techniques</p>	

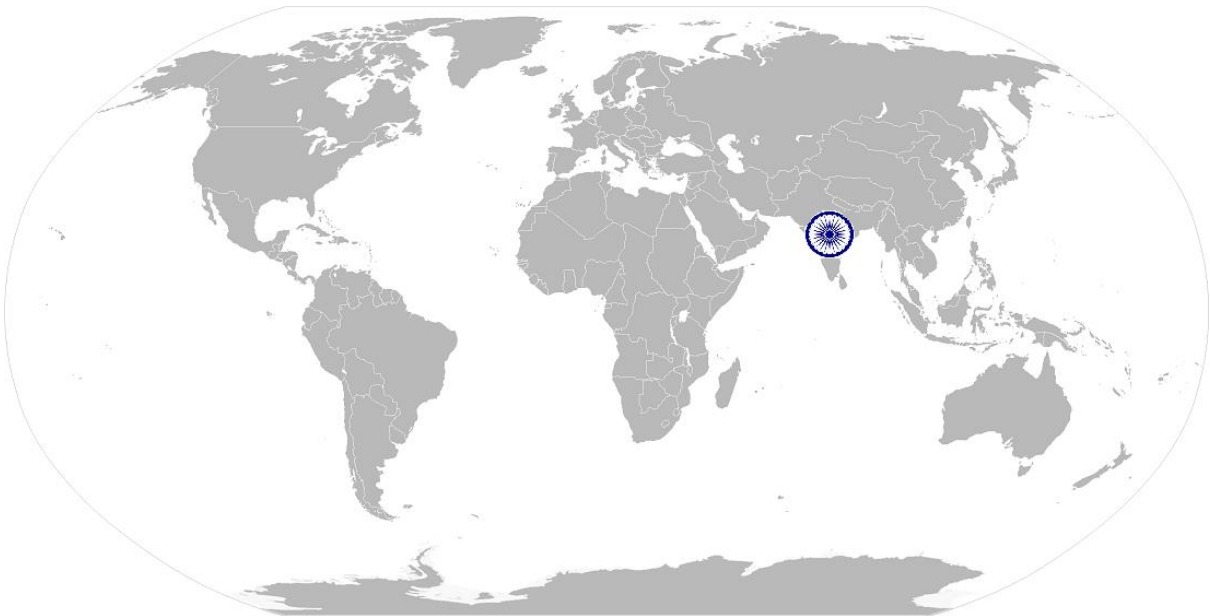


MES/ N 0701

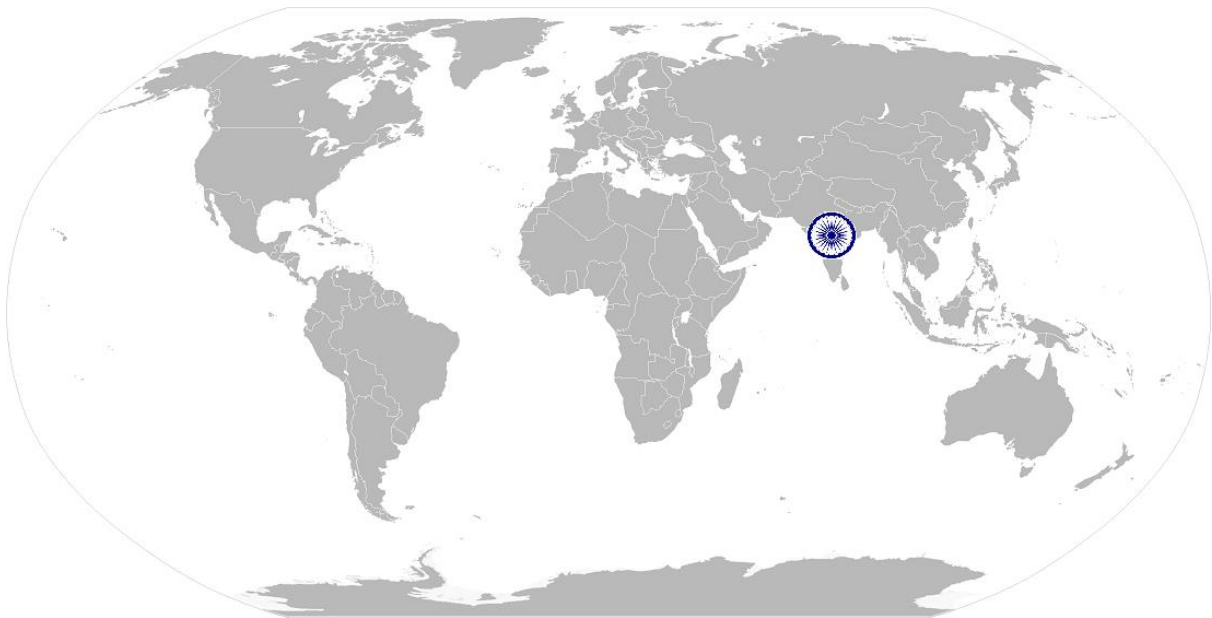
Understand Animation Requirements

## NOS Version Control

<b>NOS Code</b>	<b>MES/ N 0701</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Media and Entertainment</b>	<b>Drafted on</b>	<b>16/07/13</b>
<b>Sub-sector</b>	<b>Animation, Gaming</b>	<b>Last reviewed on</b>	<b>20/03/18</b>
<b>Occupation</b>	<b>Animator</b>	<b>Next review date</b>	<b>20/03/20</b>



# National Occupational Standard



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## Overview

**This unit is about detailing the creative and design aspects of production**

MES/ N 0702

### Conceptualise Creative Ideas for Production

National Occupational Standard

<b>Unit Code</b>	MES/ N 0702
<b>Unit Title (Task)</b>	Conceptualise Creative Ideas for Production
<b>Description</b>	This OS unit is about detailing the creative and design aspects of production
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>Gathering visual references to serve as aids during the animation process</li> <li>Conceptualising creative ideas for animation</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Gathering visual references to serve as aids during the animation process	To be competent, the user/individual on the job must be able to: PC1. Research and find character references that aid and inspire designs, including: <ul style="list-style-type: none"> <li>Previously executed animation work-products</li> <li>Animations products available in the public domain</li> <li>Artwork and other human, animal and creature behavioral videos</li> </ul>
Conceptualising creative ideas for animation	PC2. Generate creative concepts and ideas for production using the concept art-work prepared by the designers, including: <ul style="list-style-type: none"> <li>Character's look, colors, dressing, attitude and behavior</li> <li>Character expressions, emotions, poses</li> <li>Character movement (e.g. walk, run, jump) and timing (body mechanics)</li> <li>Costume designs</li> <li>Color, lighting concepts and shadow placement, Environment</li> </ul> PC3. Present and discuss concepts with the Director, Art Director or Supervisors PC4. Agree on the style of the work-product that would most appeal to the target audience, taking into account production timelines and requirements
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. The guidelines provided by the Director, Animation Supervisor and the Producer with respect to characters and look and feel of the end-product</li> <li>KA2. The elements/concept artwork (prepared by the Character Designers and the Background/Layout designers) and the colour/lighting/shadow keys (prepared by the art director, colour key artists)</li> <li>KA3. The resources that are going to be used for production</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. The trends in animation and reference work-products produced before that closely relate to the style and technique that needs to be produced</li> <li>KB2. How to observe and study human behavior and expressions to help visualise concepts</li> <li>KB3. How to enact and emote</li> <li>KB4. How to create hook up poses and animation</li> <li>KB5. How to use camera angles to emphasize performance</li> <li>KB6. New media technology including what is good for the web, mobile, tablets</li> <li>KB7. How to evaluate the strengths and weaknesses of the hardware, software being used in the production pipeline</li> </ul>

MES/ N 0702

**Conceptualise Creative Ideas for Production**

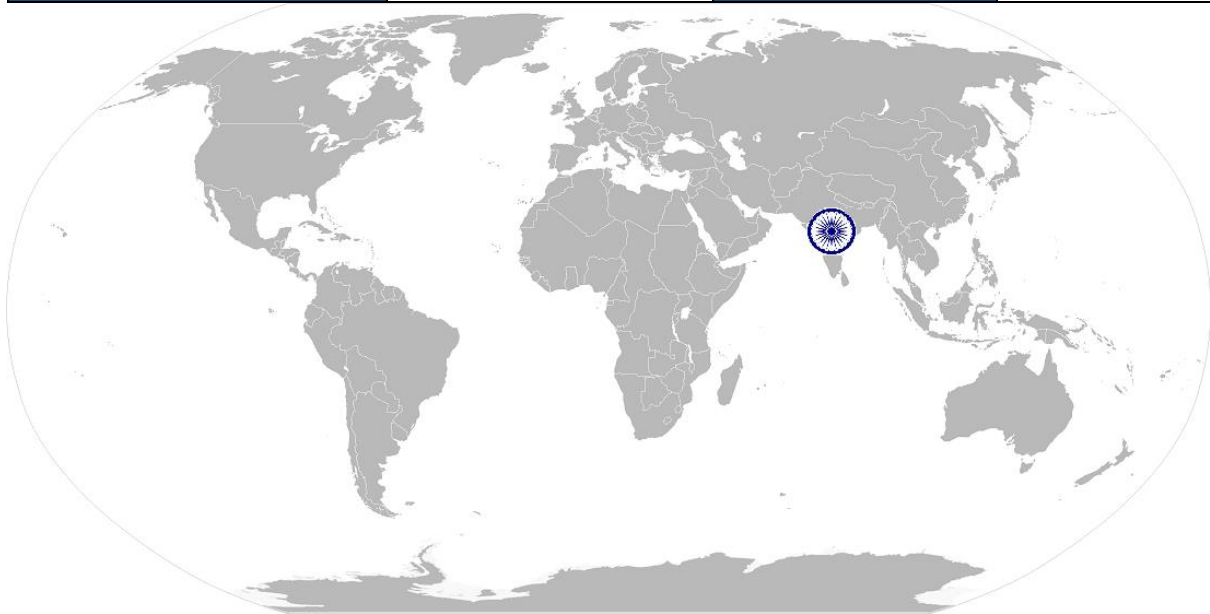
<b>Skills (S) (Optional)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to: SA1. Document links, animation videos, artwork etc. that can be used as references during the production process SA2. Document character profiles and background descriptions, to help present to Directors and supervisors, and guide the production process
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: SA3. Interpret the storyboard/animatic correctly and understand the mood of the sequence/shot SA4. Research visual and written content to find appropriate references to be used during animation SA5. Keep apprised of the trends and work-products that are being produced in the market
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA6. Suggest creative ideas to the Director and Animation supervisor SA7. Communicate clearly and collaborate effectively with colleagues from various departments
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand: SB1. Document creative ideas and concepts in an organized manner SB2. Work effectively as a member of the team and help realise overall timelines SB3. Prioritise work-products and tasks based on requirements
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB4. Critically evaluate visual and written content/products during concept conceptualization
	<b>Decision making</b>
	The user/individual on the job needs to know and understand how to: SB5. Finalise the design ideas as per the project requirements and client needs
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to: SB6. Check that own and/or your peer's work meets customer requirements.
<b>Problem Solving</b>	
The user/individual on the job needs to know and understand how to: SB7. Address comments on the interim work-products and make changes accordingly	
<b>Critical Thinking</b>	
The user/individual on the job needs to know and understand how to: SB8. Appraise the quality of own work to ensure it is in line with the expected quality standards	

MES/ N 0702

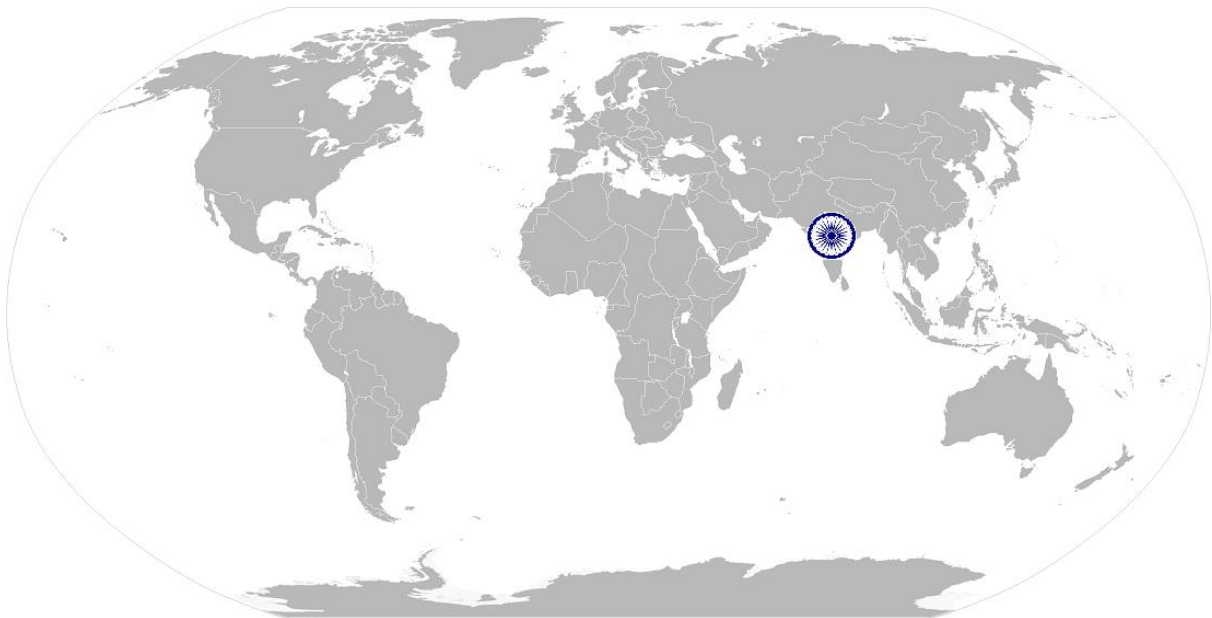
## Conceptualise Creative Ideas for Production

### NOS Version Control

<b>NOS Code</b>	MES/ N 0702		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Sector</b>	Media and Entertainment	<b>Drafted on</b>	16/07/13
<b>Sub-sector</b>	Animation, Gaming	<b>Last reviewed on</b>	20/03/18
<b>Occupation</b>	Animator	<b>Next review date</b>	20/03/20



# National Occupational Standard



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## Overview

**This unit is about selecting the most appropriate software tool(s) for production and planning the workflow for animation**

MES/ N 0703

**Plan Tools and Workflow**

National Occupational Standard

<b>Unit Code</b>	<b>MES/ N 0703</b>
<b>Unit Title (Task)</b>	<b>Plan Tools and Workflow</b>
<b>Description</b>	This OS unit is about selecting the most appropriate software tool(s) for production and planning the workflow for animation
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>Understanding the software tools to be used for production</li> <li>Understanding and following the work plan</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Understanding the software tools to be used for production	To be competent, the user/individual on the job must be able to: <p>PC1. Stay apprised of the various types of software tools available for production in the market including:</p> <ul style="list-style-type: none"> <li>2D animation: Toon Boom Harmony, Adobe Flash, Hand-drawing</li> <li>3D animation: Autodesk Maya, XSI, Motion Builder, 3D Studio Max, Blender</li> <li>Other custom and in-house tools</li> </ul> <p>PC2. Research and recommend the most appropriate tools for the production</p>
Understanding and following the work plan	<p>PC3. Understand the workplan including production schedule, workflow, timelines, department wise output targets and technical specifications for the show</p> <p>PC4. Evaluate timelines for workflow, for oneself or the wider animation team, in accordance with the production schedule</p> <p>PC5. Read, follow and update the production workflow/schedule, deliverables and timelines with the Director, Art Director and Supervisors</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <p>KA1. The production process followed by the organization</p> <p>KA2. The production team and their individual roles and capabilities</p> <p>KA3. The standards for quality set by the organization</p> <p>KA4. The production process and creative brief</p>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <p>KB1. The software tools and equipment available in-house and/or through third-party providers</p> <p>KB2. The nuances of various tools and how to suggest the best tool suitable for the production</p> <p>KB3. Traditional drawing tools and techniques</p> <p>KB4. How to plan a shot-break-up</p> <p>KB5. How to prepare a production schedule, including a break-up of activities that would need to be performed and deliverables that would need to be produced (supervisor)</p> <p>KB6. How to estimate the expected effort, expected time for production and delivery keeping in mind the delivery dates, quality standards and project schedule (Supervisor)</p>

MES/ N 0703

**Plan Tools and Workflow**

	<p>KB7. The principles of project management like Project planning, scheduling, effort estimation, resource requirements (right from people to machines, space and communication tools)</p> <p>KB8. Risk and Mitigation planning</p> <p>KB9. Rework and review management (efficiency and effectiveness)</p> <p>KB10. Techniques to identify trends in rework and propose/implement corrective action</p> <p>KB11. CPM and PERT techniques</p> <p>KB12. Configuration Management</p> <p>KB13. The technical aspects of the job undertaken by other members of the production team (before and after the work of an animator)</p> <p>KB14. How to prepare a detailed work plan and demarcate roles and responsibilities to members of the production team (Supervisor)</p>
<b>Skills (S) (Optional)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Prepare the work-plan (production plan and schedule) in an appropriate format that can be used as a reference point for planning workflow and assigning responsibilities(Supervisor)</p> <p>SA2. Track the workflow on a regular basis and document deviations from timelines (Supervisor)</p> <p>SA3. Create and present project status reports</p> <p>SA4. Write in English (added advantage)</p>
	<b>Reading Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Keep apprised of the various software tools that are being used to produce animation</p> <p>SA6. Read and understand the software manuals and help tools, where required</p> <p>SA7. Read and understand the production and creative brief prepared by the Director and Art Director</p> <p>SA8. Read and understand notes, instructions and inputs from clients</p> <p>SA9. Read in English (added advantage)</p>
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA10. Clarify the production and creative brief from the Director, Art Director and Supervisors</p> <p>SA11. Understand the production specifications and quality standards to be maintained</p> <p>SA12. Discuss and agree upon the software tools to be used for production</p> <p>SA13. Discuss and agree upon the production schedule and work plan</p> <p>SA14. Communicate effectively with team members to demarcate workflow and responsibilities</p> <p>SA15. Seek clarifications on the work plan from Supervisors</p>
<b>B. Professional Skills</b>	<b>Plan and Organize</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Assess the effort, duration and cost involved for each work activity</p> <p>SB2. Plan the production workflow, timelines and deliverables</p>



MES/ N 0703

**Plan Tools and Workflow**

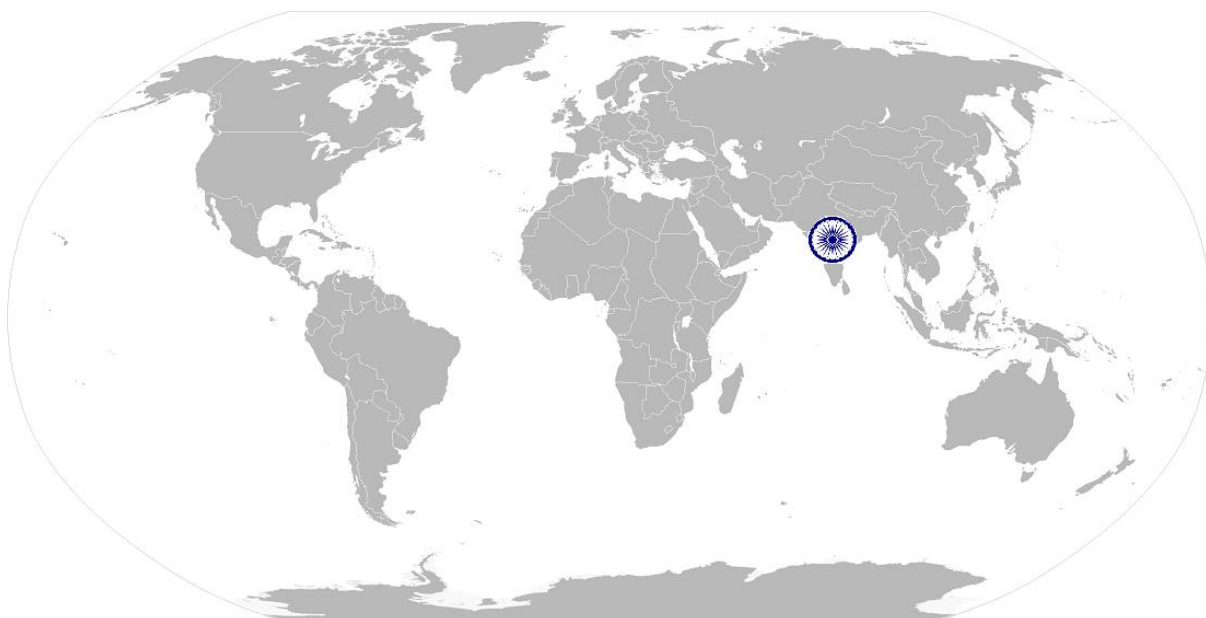
	<p>SB3. Agree on the roles and responsibilities of the team members</p> <p>SB4. Foresee any risks, issues and challenges that might arise during the production environment and plan accordingly</p>
	<p><b>Decision making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. Manage creative decisions as per the client inputs while choosing the medium of animation and the relevant softwares while producing animation</p>
	<p><b>Customer Centricity</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. How to plan individual timelines and deliver on schedule Plan and prioritize work according to the requirements of the client and project workflow</p>
	<p><b>Problem Solving</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Seek assistance and guidance from the Director, Art Director and Supervisors, where required while planning the workflow and tools used.</p> <p>SB8. Address comments and make changes accordingly as per the client requirements</p>
	<p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. Have a keen eye for detail and maintain an aesthetic sense towards colour Shapes, forms and software capabilities of the final output while planning the workflow and tools required.</p>
	<p><b>Critical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. Improve work-flow and performance based on feedback received by team members and client</p>

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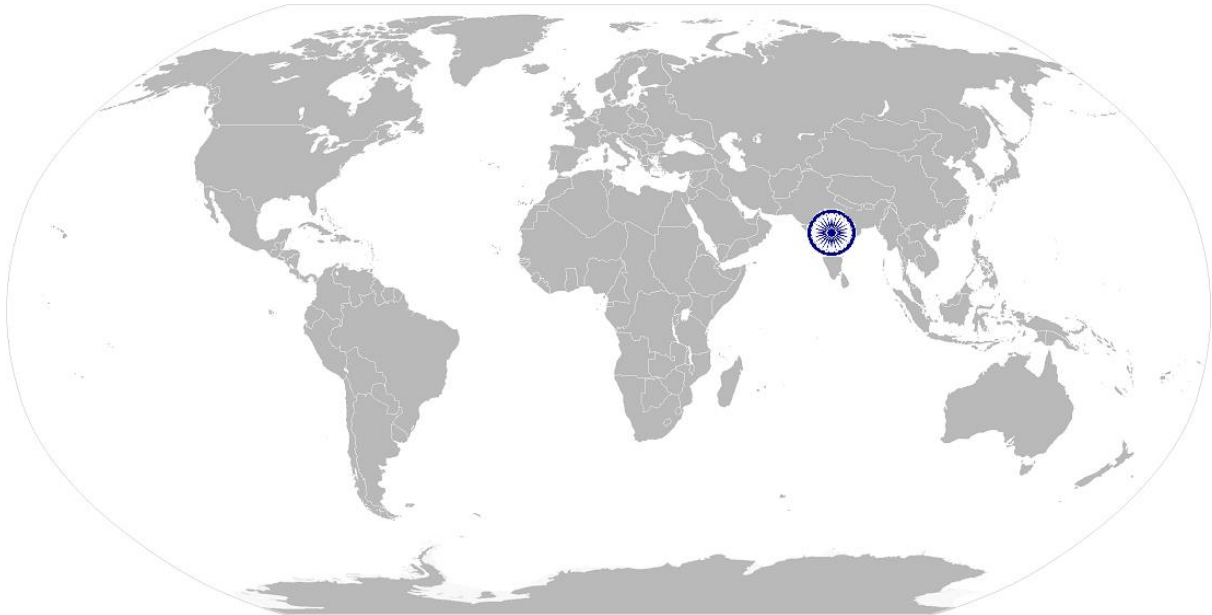
Plan Tools and Workflow

## NOS Version Control

<b>NOS Code</b>	<b>MES/ N 0703</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Media and Entertainment</b>	<b>Drafted on</b>	<b>16/07/13</b>
<b>Sub-sector</b>	<b>Animation, Gaming</b>	<b>Last reviewed on</b>	<b>20/03/18</b>
<b>Occupation</b>	<b>Animator</b>	<b>Next review date</b>	<b>20/03/20</b>



# National Occupational Standard



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## Overview

This unit is about producing a set of 2D animated images, based on the storyboard, which would create an illusion of movement once played back in a sequential manner

MES/ N 0704

## Produce 2D Animation

National Occupational Standard

<b>Unit Code</b>	MES/ N 0704
<b>Unit Title (Task)</b>	Produce 2D Animation
<b>Description</b>	This OS unit is about producing a set of 2D animated images, based on the storyboard, which would create an illusion of movement once played back in a sequential manner.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Preparing a prototype 2D work product/pre-visualisation</li> <li>• Preparing 2D animation end-products <ul style="list-style-type: none"> <li>• This may be across: films, television series, advertisements, education content, work-products for the internet, promotional material/corporate presentations, game art, augmented reality and industry specific content such as scientific animation, legal and architecture</li> </ul> </li> <li>• Using 2D animation tools</li> <li>• Reviewing, refining and storing end-products</li> <li>• Working effectively within the animation team</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Preparing a prototype 2D work product/pre-visualisation	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Follow the storyboard for composition (eg: positioning of the character with respect to the background/camera to create the desired animation)</p> <p>PC2. Draw/source key frame drawings to establish reference points for poses</p>
Preparing 2D animation end-products	<p>PC3. Apply principles of design, 2D animation and film-making to create sequences and scenes/shots including cell animation or classic hand drawn animation, cut out animation and limited animation</p> <p>PC4. Incorporate audio/music assets</p> <p>PC5. Create shadows for animation using pre-defined lighting keys</p> <p>PC6. Bring assets together to produce sequences and scenes/shots as per requirements and ensuring continuity</p> <p>PC7. Ensure that the hook-up/transition from one scene to another is effective</p>
Using 2D animation tools	<p>PC8. Use graphics and animation software to produce in-between poses for animation such as Toon Boom Harmony, Flash, Open source software</p>
Reviewing, refining and storing end-products	<p>PC9. Critically review animation produced, keeping in mind creative and design specifications and the production brief</p> <p>PC10. Refine the output based on deviations observed and/or modifications required within requisite timelines</p> <p>PC11. Ensure that work-products meet quality standards (so that they can be approved with minimum iterations) and are delivered in requisite timelines</p> <p>PC12. Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use</p>
Working effectively within the animation team	<p>PC13. Work and communicate effectively within the team and with other departments, namely assets, lighting and effects</p> <p>PC14. Train junior animators to improve their output quality and skills, if appropriate to the role</p>

MES/ N 0704

**Produce 2D Animation**

Knowledge and Understanding (K)	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. The objective/purpose that the end-product intends to achieve</li> <li>KA2. Responsibilities and scope of work for various departments</li> <li>KA3. The expectations of the Client, Director, Animation Supervisor and the Producer with respect to the process, techniques to be used and guidelines with respect to characters and look and feel of the end-product</li> <li>KA4. Limitations on the effort, schedule, resources and issues that might arise during production</li> <li>KA5. The production requirements and quality that needs to be reflected in the final output</li> <li>KA6. The timelines within which the product needs to be delivered</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. The fundamentals and principles of Animation and film-making</li> <li>KB2. Life drawing including human anatomy, emotions, actions and expressions</li> <li>KB3. How to enact and emote; and thereby animate characters in accordance to the demands of the script and animatic</li> <li>KB4. Principles of movement and timing</li> <li>KB5. How to work with graphics and animation software including Adobe Flash, Harmony and understand their specifics</li> <li>KB6. Design standards and specifications that needs to be complied with to produce the final output</li> <li>KB7. The interaction between various characters in a given scene and bring out that dynamic in the animation</li> <li>KB8. Applicable health and safety guidelines</li> </ul>
Skills (S) (Optional)	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> <li>SA1. Document output, efforts and schedule taken to complete the allotted task</li> </ul>
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> <li>SA2. Read and understand the script and character descriptions</li> <li>SA3. Read the work plan and production schedule to ensure that progress is in line</li> </ul>
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> <li>SA4. Suggest creative ideas to the Director and Animation supervisor</li> <li>SA5. Communicate clearly and collaborate effectively with colleagues who are working with the previous or next scenes/shots</li> <li>SA6. Understand the modifications required from the Director, Animation supervisor and Producer</li> <li>SA7. Discuss the challenges faced during production and discuss ways to address</li> <li>SA8. such challenges in future projects</li> </ul>

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**Produce 2D Animation**

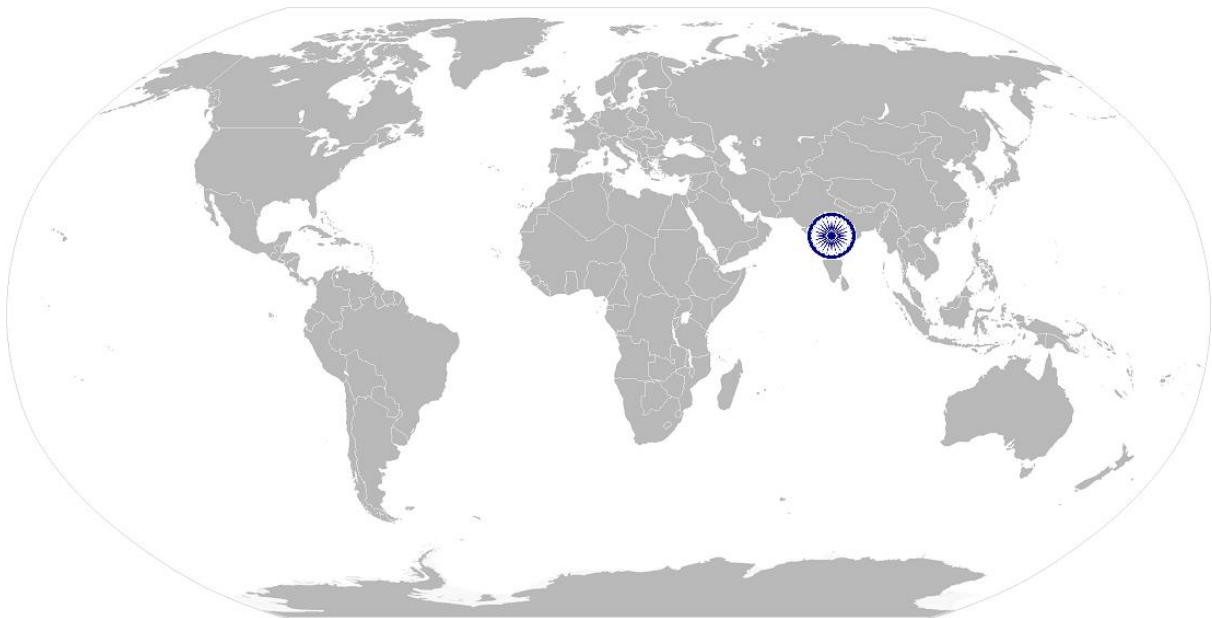
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. Make decisions in order to be able to work collectively and independently, where required
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to: SB2. Plan and prioritise work as per the client requirements.
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB3. Have a keen eye for detail and maintain an aesthetic sense towards colour Shapes, forms and software capabilities of the final output
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand: SB4. Understand shot break up and plan effort and time required for each element of the shot SB5. How to plan and prioritise individual timelines and deliver on schedule SB6. Work effectively as a member of the team and help realise overall timelines SB7. Prioritise work-products and tasks based on requirements
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to: SB8. Address comments and make changes SB9. Seek assistance and guidance from the Director, Art Director and Supervisors, where required
	<b>Critical Thinking</b>
The user/individual on the job needs to know and understand how to: SB10. Improve work-products and performance based on feedback received and through self-appraisal SB11. Understand the perspective of Client, Director, Art Director and Supervisors and apply it to the animation being produced	

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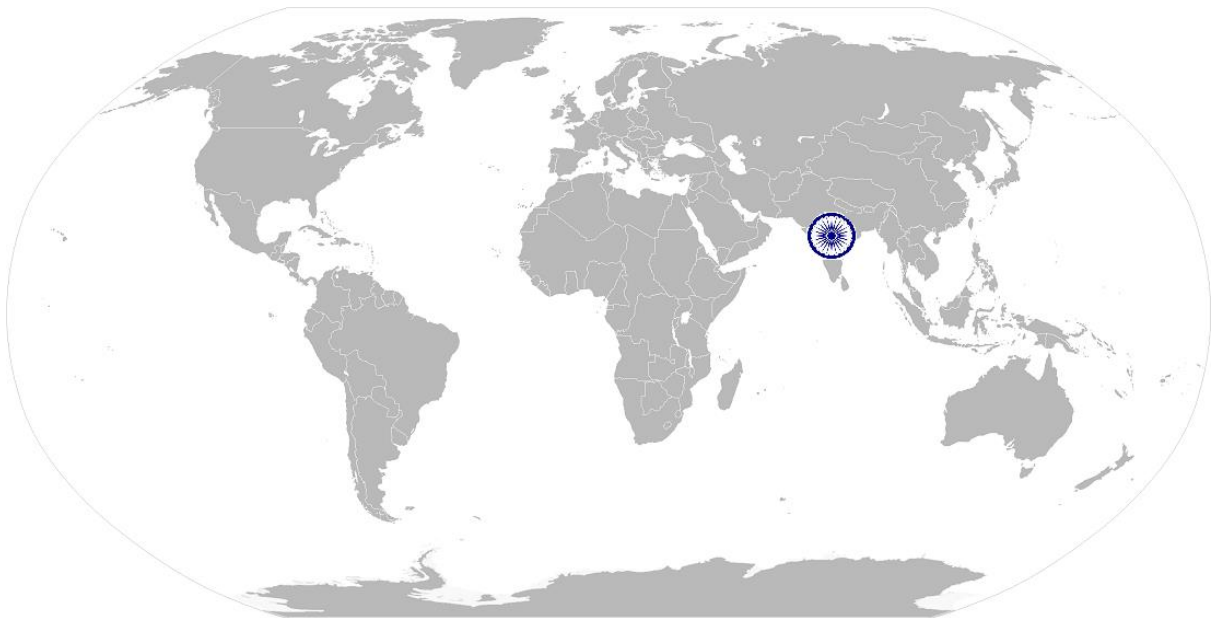
Produce 2D Animation

## NOS Version Control

<b>NOS Code</b>	<b>MES/ N 0704</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Media and Entertainment</b>	<b>Drafted on</b>	<b>16/07/13</b>
<b>Sub-sector</b>	<b>Animation, Gaming</b>	<b>Last reviewed on</b>	<b>20/03/18</b>
<b>Occupation</b>	<b>Animator</b>	<b>Next review date</b>	<b>20/03/20</b>



# National Occupational Standard



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## Overview

This unit is about animating 3D models using relevant techniques, based on the storyboard



MES/ N 0705

**Produce 3D Animation**

National Occupational Standard

<b>Unit Code</b>	<b>MES/ N 0705</b>
<b>Unit Title (Task)</b>	<b>Produce 3D Animation</b>
<b>Description</b>	This OS unit is about animating 3D models using relevant techniques, based on the storyboard
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Preparing a prototype 3D work product/pre-visualisation</li> <li>• Preparing 3D animation end-products <ul style="list-style-type: none"> <li>• This may be across: films, television series, advertisements, education content, work-products for the internet, promotional material/corporate presentations, game art, augmented reality and industry specific content such as scientific animation, legal and architecture</li> </ul> </li> <li>• Applying 3D animation techniques</li> <li>• Using 3D animation tools</li> <li>• Reviewing, refining and storing end-products</li> <li>• Working effectively within the animation</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Preparing a prototype 3D work product/pre-visualisation	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Follow the storyboard for composition (eg: positioning of the character with respect to the background/camera to create the desired animation)</p> <p>PC2. Prepare prototype work product/pre-visualisation</p>
Preparing 3D animation end-products	<p>PC3. Apply principles of design, 3D animation and film-making to create sequences and scenes/shots</p> <p>PC4. Animate expressions and lip movements to match dialogues and sound</p> <p>PC5. Communicate requirements to camera and lighting for motion capture, where required</p> <p>PC6. Work with motion capture data received from the motion/ performance capture studio (clean up the data and map animation data to 3D models)</p>
Applying 3D animation techniques	<p>PC7. Apply 3D animation techniques, including:</p> <ul style="list-style-type: none"> <li>• Realistic 3D animation- motion capture + key frame animation (e.g. in films such as Beowulf, Avatar and Lord of the Rings's Gollum)</li> <li>• Semi-realistic 3D animation (e.g. in films such as little Krishna and Brave)</li> <li>• Toon 3D animation (e.g. films such as Kung-fu Panda)</li> <li>• Simulation of traditional &amp; stop motion techniques (e.g. advertisements such as Vineta Cucini, Amaron Battery etc.)</li> </ul>
Using 3D animation tools	<p>PC8. Produce 3D movements and performance with the help of 3D animation tools such as Autodesk Maya, XSI, 3d Studio Max, Blender, motion capture tools like marker tracking cameras and inertial suits</p>
Reviewing, refining and storing end-products	<p>PC15. Critically review animation produced, keeping in mind creative and design specifications and the production brief</p> <p>PC16. Refine the output based on deviations observed and/or modifications required within requisite timelines</p>

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**Produce 3D Animation**

	<p>PC17. Ensure that work-products meet quality standards (so that they can be approved with minimum iterations) and are delivered in requisite timelines</p> <p>PC18. Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use</p>
Working effectively within the animation team	<p>PC19. Work and communicate effectively within the team and other departments, namely design, modeling/rigging, texturing, editing, rendering, compositing</p> <p>PC20. Train junior animators to improve their output quality and skills, if appropriate to the role</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The objective/purpose that the end-product intends to achieve</p> <p>KA2. The profile of the target audience for the end-product</p> <p>KA3. Responsibilities and scope of work expected from the animator</p> <p>KA4. The expectations of the Client, Director, Animation Supervisor and the Producer with respect to the process, techniques to be used and guidelines with respect to characters and look and feel of the end-product</p> <p>KA5. Limitations on the effort, duration, schedule and resources and issues that might arise during production</p> <p>KA6. The production requirements and quality that needs to be reflected in the final output</p> <p>KA7. The timelines within which the product needs to be delivered</p> <p>KA8. The typical processes involved 3D Animation Production i.e. staging, blocking, 1st. level animation, lip-sync and facials, final animation, specialised animation (cloth and hair simulation), secondary animation (accessories), lighting &amp; rendering, sfx and compositing</p> <p>KA9. Applicable health and safety guidelines</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Basic/advanced scripting</p> <p>KB2. The fundamentals and principles of 3D Animation, 3D Environments and film-making</p> <p>KB3. Art and visual treatment</p> <p>KB4. Fundamentals of Motion capture and performance capture technologies</p> <p>KB5. Principles of movement and timing</p> <p>KB6. Principles of human/ animal/ character anatomy and how they can be applied to animation</p> <p>KB7. How to observe and study human/ animal/ character behavior and expressions to help visualise concepts</p> <p>KB8. How to enact and emote; and thereby animate characters in accordance to the demands of the script and animatic</p> <p>KB9. Properties of the surfaces that are being used in the animation</p> <p>KB10. How to work with graphics and animation software including Autodesk Maya, Softimage, XSI, 3D Studio Max and Blender</p> <p>KB11. Design standards and specifications that needs to be complied with to produce the final output</p> <p>KB12. 3D output and delivery formats</p> <p>KB13. Basics of modeling and rigging (added advantage)</p> <p>KB14. Applicable health and safety guidelines</p>

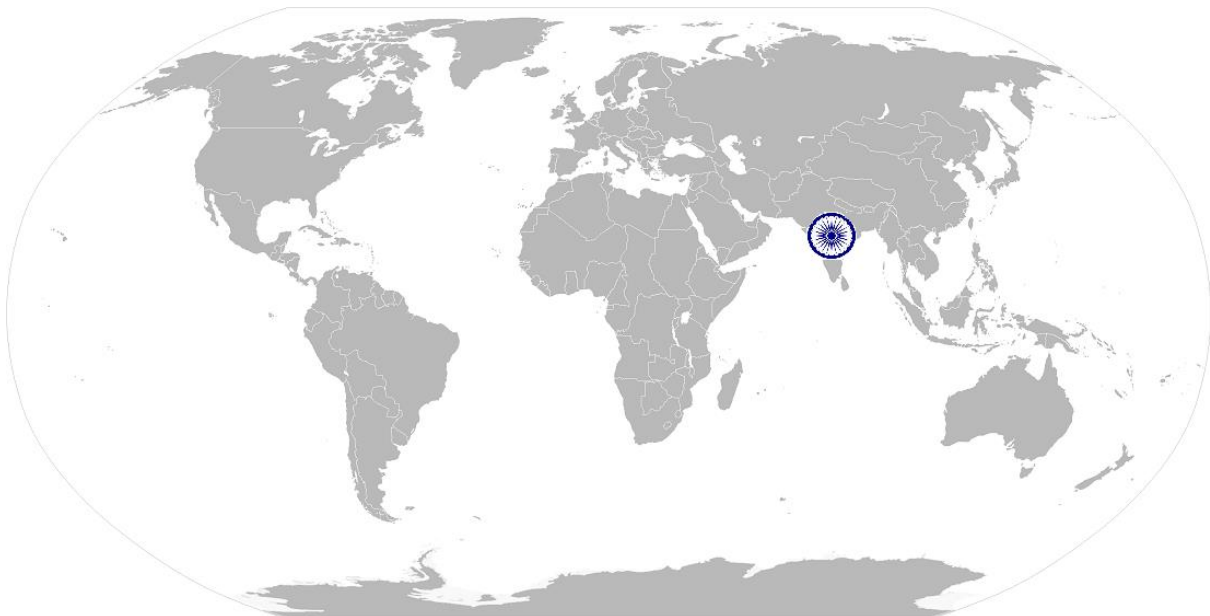
Skills (S) (Optional)	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to: SA1. Report output, efforts and schedule taken to complete the allotted task
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: SA2. Read and understand the script and character descriptions SA3. Read the work plan and production schedule to ensure that progress is in line SA4. Read and understand the short division, character identification and frames planned during motion / performance capture
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA5. Suggest creative ideas to the Director and Animation supervisor SA6. Communicate clearly and collaborate effectively with colleagues who are working with the previous or next scenes/shots SA7. Understand the modifications required from the Director, Animation supervisor and Producer SA8. Discuss the challenges faced during production and discuss ways to address such challenges in future projects
<b>B. Professional Skills</b>	<b>Decision making</b>
	The user/individual on the job needs to know and understand how to: SB1. Manage creative decisions as per the client inputs while producing 3D animation
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to: SB2. Work effectively as a member of the team and help realise overall timelines SB3. Prioritise work-products and tasks based on requirements SB4. Understand shot break up and plan effort and time required for each element of the shot
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to: SB5. How to plan individual timelines and deliver on schedule
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to: SB6. Address comments and make changes SB7. Seek assistance and guidance from the Director, Art Director and Supervisors, where required
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB8. Have a keen eye for detail and maintain an aesthetic sense towards colour Shapes, forms and software capabilities of the final output
<b>Critical Thinking</b>	
The user/individual on the job needs to know and understand how to: SB9. Improve work-products and performance based on feedback received and through self-appraisal	

MES/ N 0705

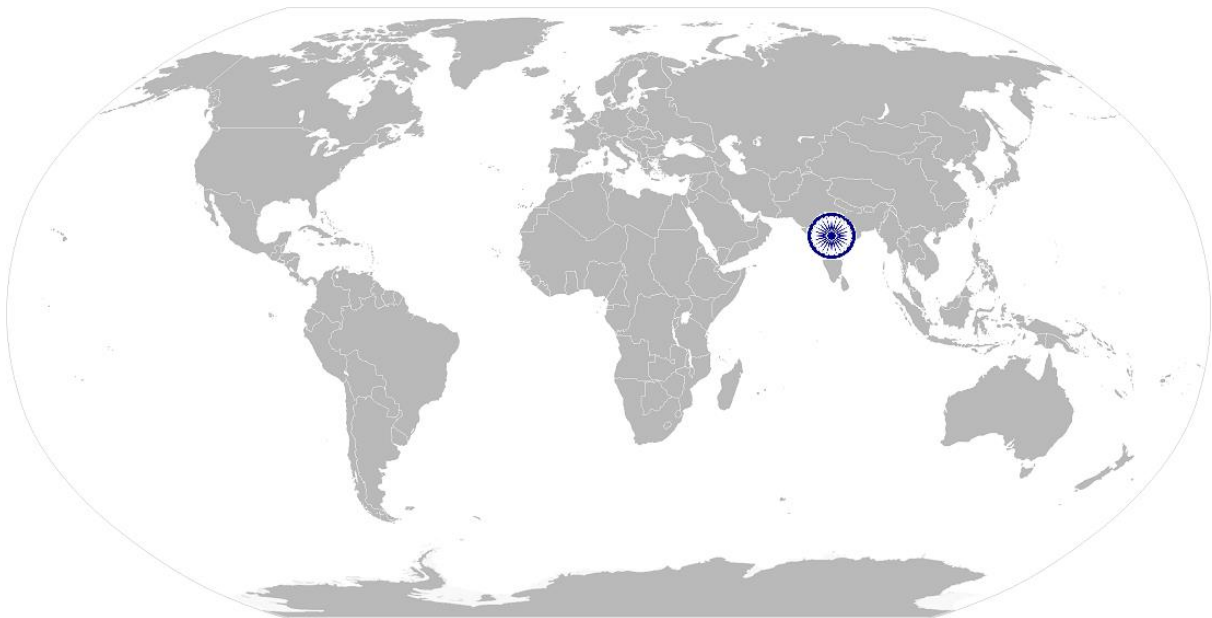
Produce 3D Animation

## NOS Version Control

<b>NOS Code</b>	MES/ N 0705		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Sector</b>	Media and Entertainment	<b>Drafted on</b>	16/07/13
<b>Sub-sector</b>	Animation, Gaming	<b>Last reviewed on</b>	20/03/18
<b>Occupation</b>	Animator	<b>Next review date</b>	20/03/20



# National Occupational Standard



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## Overview

**This unit is about producing stop motion animation using relevant techniques, based on the storyboard**

MES/ N 0706

**Produce Stop Motion Animation**

National Occupational Standard

<b>Unit Code</b>	<b>MES/ N 0706</b>
<b>Unit Title (Task)</b>	<b>Produce Stop Motion Animation</b>
<b>Description</b>	This OS unit is about producing stop motion animation using relevant techniques, based on the storyboard
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Preparing a prototype work product/pre-visualisation</li> <li>• Preparing stop motion animation end-products <ul style="list-style-type: none"> <li>• This may be across: films, television series, advertisements, education content, work-products for the internet, promotional material/corporate presentations, game art, augmented reality and industry specific content such as scientific animation, legal and architecture</li> </ul> </li> <li>• Reviewing, refining and storing end-products</li> <li>• Applying stop-motion animation techniques</li> <li>• Working effectively within the animation team</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Preparing a prototype work product/pre-visualisation	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Follow the storyboard for composition (eg: the way characters will act/move in accordance with the storyboard)</p> <p>PC2. Prepare prototype work products/pre-visualisation</p>
Preparing stop motion animation end-products	<p>PC3. Move characters and construct/compose a shot as per the storyboard</p> <p>PC4. Animate stop motion characters (puppets or models) in accordance with the script and any feedback from the Director/Producer/Supervisor</p>
Applying stop-motion animation techniques	<p>PC5. Apply stop motion animation techniques including:</p> <ul style="list-style-type: none"> <li>• Traditional frame-by-frame capture</li> <li>• Claymation</li> <li>• Cut-out using computer-generated tools</li> </ul>
Reviewing, refining and storing end-products	<p>PC6. Critically review animation produced, keeping in mind creative and design specifications and the production brief</p> <p>PC7. Refine the output based on deviations observed and/or modifications required within requisite timelines</p> <p>PC8. Ensure that work-products meet quality standards (so that they can be approved with minimum iterations) and are delivered in requisite timelines</p> <p>PC9. Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further</p>
Working effectively within the animation team	<p>PC10. Train junior animators to improve their output quality and skills, if appropriate to the role</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company /	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The objective/purpose that the end-product intends to achieve</p> <p>KA2. The profile of the target audience for the end-product</p> <p>KA3. Responsibilities and scope of work for various departments</p>

MES/ N 0706

**Produce Stop Motion Animation**

<p>organization and its processes)</p>	<p>KA4. The expectations of the Director, Animation Supervisor and the Producer with respect to the process, techniques to be used and guidelines with respect to characters and look and feel of the end-product</p> <p>KA5. Limitations on the time and resources and issues that might arise during production</p> <p>KA6. The production requirements and quality that needs to be reflected in the final output</p> <p>KA7. The timelines within which the product needs to be delivered</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The fundamentals and principles of Animation and film-making</p> <p>KB2. Stop motion animation techniques</p> <p>KB3. Principles of movement and timing</p> <p>KB4. How to develop/portray the character in accordance to the script</p> <p>KB5. Principles of human anatomy and how they can be applied to animation</p> <p>KB6. How to observe and study human behavior and expressions to help visualise concepts</p> <p>KB7. How to enact and emote; and thereby animate characters in accordance to the demands of the script and animatic</p> <p>KB8. Properties of the characters and materials that are being used in the animation</p> <p>KB9. How to work with graphics and animation software including Autodesk Maya, XSI, 3D studio max and Blender</p> <p>KB10. Design standards and specifications that needs to be complied with to produce the final output</p> <p>KB11. Applicable health and safety guidelines</p>
<p><b>Skills (S) (Optional)</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Document output, efforts and schedule taken to complete the allotted task</p> <p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA2. Read and understand the script and character descriptions</p> <p>SA3. Read the work plan and production schedule to ensure that progress is in line</p> <p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Suggest creative ideas to the Director and Animation supervisor</p> <p>SA5. Communicate clearly and collaborate effectively with colleagues who are working with the previous or next scenes/shots</p> <p>SA6. Understand the modifications required from the Director, Animation supervisor and Producer</p> <p>SA7. Discuss the challenges faced during production and discuss ways to address such challenges in future projects</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Manage creative decisions as per the client inputs while producing animation</p> <p><b>Plan and Organize</b></p>

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**Produce Stop Motion Animation**

	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> <li>SB2. How to plan individual timelines and deliver on schedule</li> <li>SB3. Work effectively as a member of the team and help realise overall timelines</li> <li>SB4. Prioritise work-products and tasks based on requirements</li> </ul>
	<p><b>Customer Centricity</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> <li>SB5. How to plan individual timelines and deliver on schedule Plan and prioritize work according to the requirements</li> <li>SB6. Manage deadlines successfully on time</li> </ul>
	<p><b>Problem Solving</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> <li>SB7. Address comments and make changes</li> <li>SB8. Seek assistance and guidance from the Director, Art Director and Supervisors, where required</li> </ul>
	<p><b>Analytical Thinking</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> <li>SB9. Have a keen eye for detail and maintain an aesthetic sense towards colour Shapes, forms and software capabilities of the final output</li> </ul>
<p><b>Critical Thinking</b></p>	
<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> <li>SB10. Improve work-products and performance based on feedback received and through self-appraisal</li> </ul>	



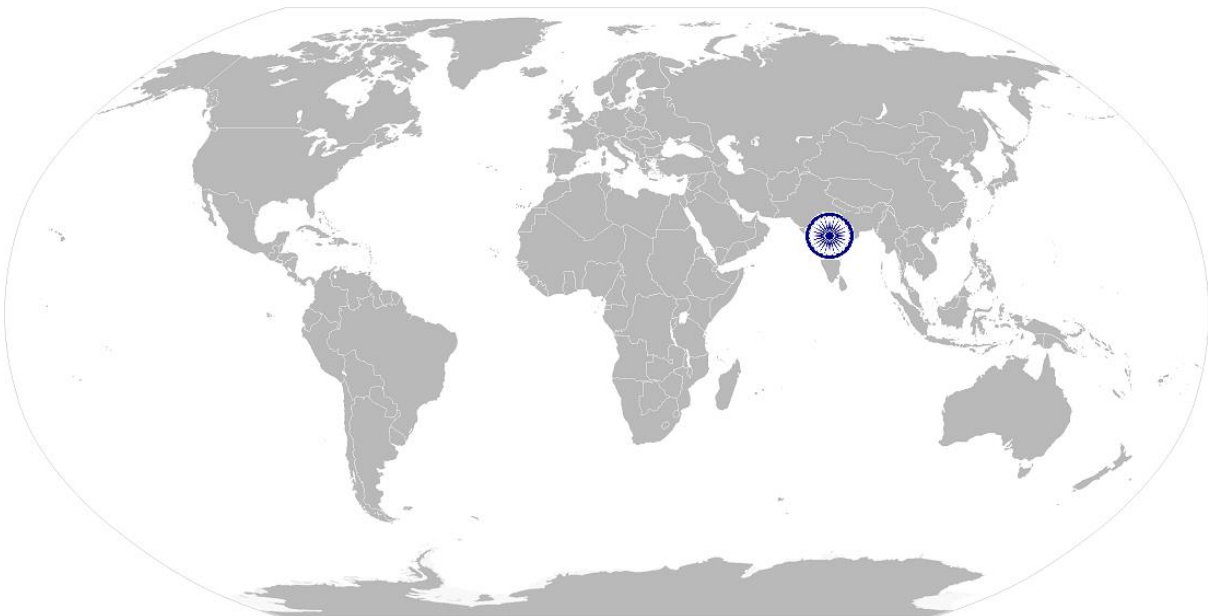


MES/ N 0706

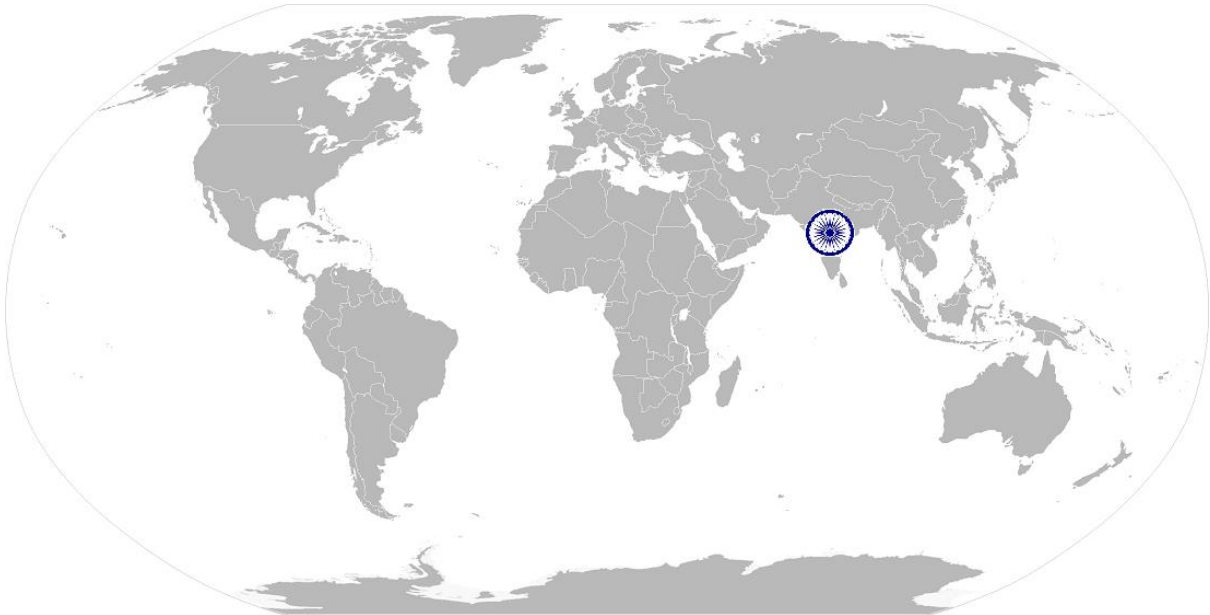
Produce Stop Motion Animation

## NOS Version Control

<b>NOS Code</b>	MES/ N 0706		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Sector</b>	Media and Entertainment	<b>Drafted on</b>	16/07/13
<b>Sub-sector</b>	Animation, Gaming	<b>Last reviewed on</b>	20/03/18
<b>Occupation</b>	Animator	<b>Next review date</b>	20/03/20



# National Occupational Standard



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## Overview

This unit is about contributing towards maintaining a healthy, safe and secure working environment

MES/ N 0104

**Maintain workplace health and safety**

National Occupational Standard

<b>Unit Code</b>	MES/ N 0104
<b>Unit Title (Task)</b>	<b>Maintain workplace health and safety</b>
<b>Description</b>	This OS unit is about contributing towards maintaining a healthy, safe and secure working environment
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>Understanding the health, safety and security risks prevalent in the workplace</li> <li>Knowing the people responsible for health and safety and the resources available</li> <li>Identifying and reporting risks</li> <li>Complying with procedures in the event of an emergency</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
Understanding the health, safety and security risks prevalent in the workplace	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Understand and comply with the organisation's current health, safety and security policies and procedures</p> <p>PC2. Understand the safe working practices pertaining to own occupation</p> <p>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</p> <p>PC4. Participate in organization health and safety knowledge sessions and drills</p>
Knowing the people responsible for health and safety and the resources available	<p>PC5. Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency</p> <p>PC6. Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms</p>
Identifying and reporting risks	<p>PC7. Identify aspects of your workplace that could cause potential risk to own and others health and safety</p> <p>PC8. Ensure own personal health and safety, and that of others in the workplace through precautionary measures</p> <p>PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person</p> <p>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</p>
Complying with procedures in the event of an emergency	<p>PC11. Follow organisation's emergency procedures for accidents, fires or any other natural calamity in case of a hazard</p> <p>PC12. Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Organisation's norms and policies relating to health and safety</p> <p>KA2. Government norms and policies regarding health and safety and related emergency procedures</p> <p>KA3. Limits of authority while dealing with risks/ hazards</p> <p>KA4. The importance of maintaining high standards of health and safety at a workplace</p>

MES/ N 0104

**Maintain workplace health and safety**

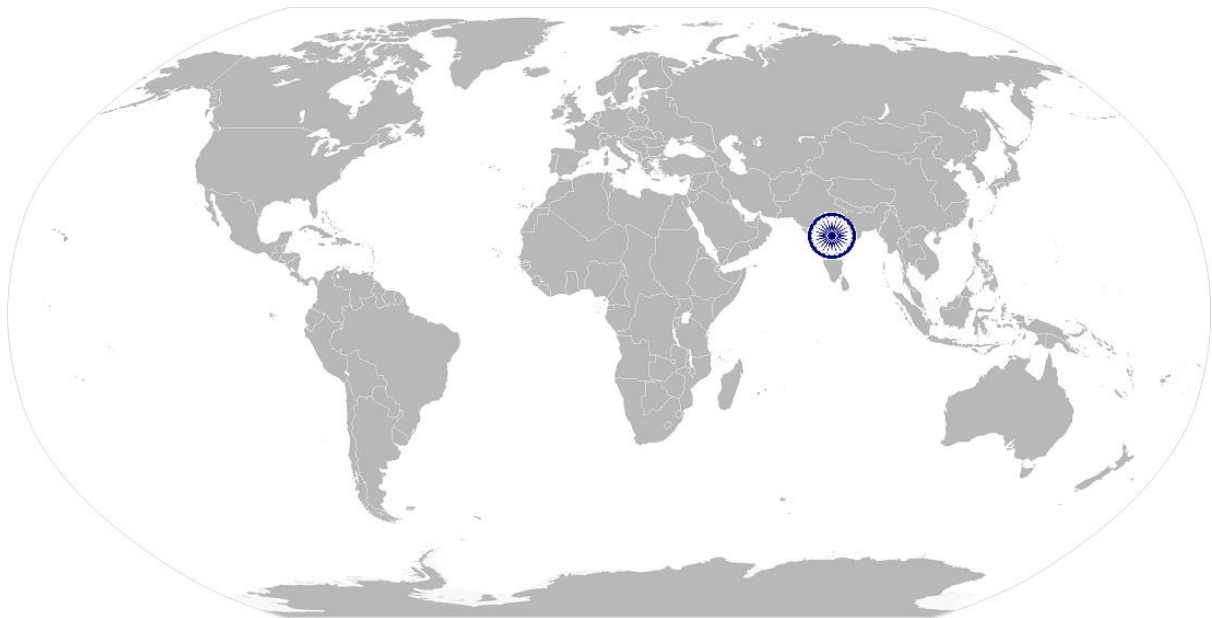
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The different types of health and safety hazards in a workplace</p> <p>KB2. Safe working practices for own job role</p> <p>KB3. Evacuation procedures and other arrangements for handling risks</p> <p>KB4. Names and contact numbers of people responsible for health and safety in a workplace</p> <p>KB5. How to summon medical assistance and the emergency services, where necessary</p> <p>KB6. Vendors' or manufacturers' instructions for maintaining health and safety while using equipments, systems and/or machines</p>
<p><b>Skills (S) (Optional)</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. How to write and provide feedback regarding health and safety to the concerned people</p> <p>SA2. How to write and highlight potential risks or report a hazard to the concerned people</p> <p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. Read instructions, policies, procedures and norms relating to health and safety</p> <p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Highlight potential risks and report hazards to the designated people</p> <p>SA5. Listen and communicate information with all anyone concerned or affected</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Make decisions on a suitable course of action or plan</p> <p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. Plan and organize people and resources to deal with risks/ hazards that lie within the scope of one's individual authority</p> <p><b>Customer Centricity</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. build and maintain positive and effective relationships with colleges and customers</p> <p><b>Problem Solving</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. Apply problem solving approaches in different situations</p> <p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. analyze data and activities</p> <p><b>Critical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. Understand hazards that fall within the scope of individual authority and report all hazards that may supersede one's authority</p> <p>SB7. Apply balanced judgements in different situations</p>

MES/ N 0104

Maintain workplace health and safety

## NOS Version Control

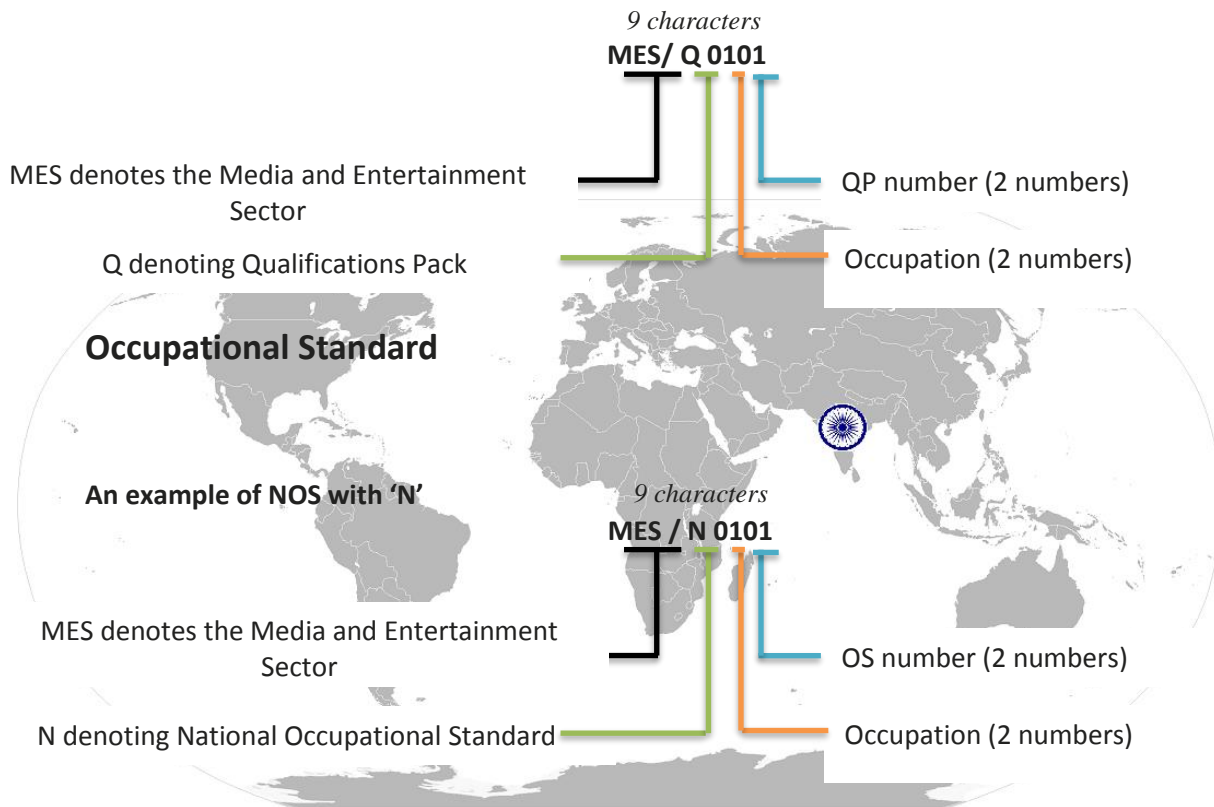
<b>NOS Code</b>	MES / N 0104		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Sector</b>	Media and Entertainment	<b>Drafted on</b>	16/07/13
<b>Sub-sector</b>	Animation, Gaming	<b>Last reviewed on</b>	20/03/18
<b>Occupation</b>	Animator	<b>Next review date</b>	20/03/20



## Annexure

### Nomenclature for QP and NOS

#### Qualifications Pack

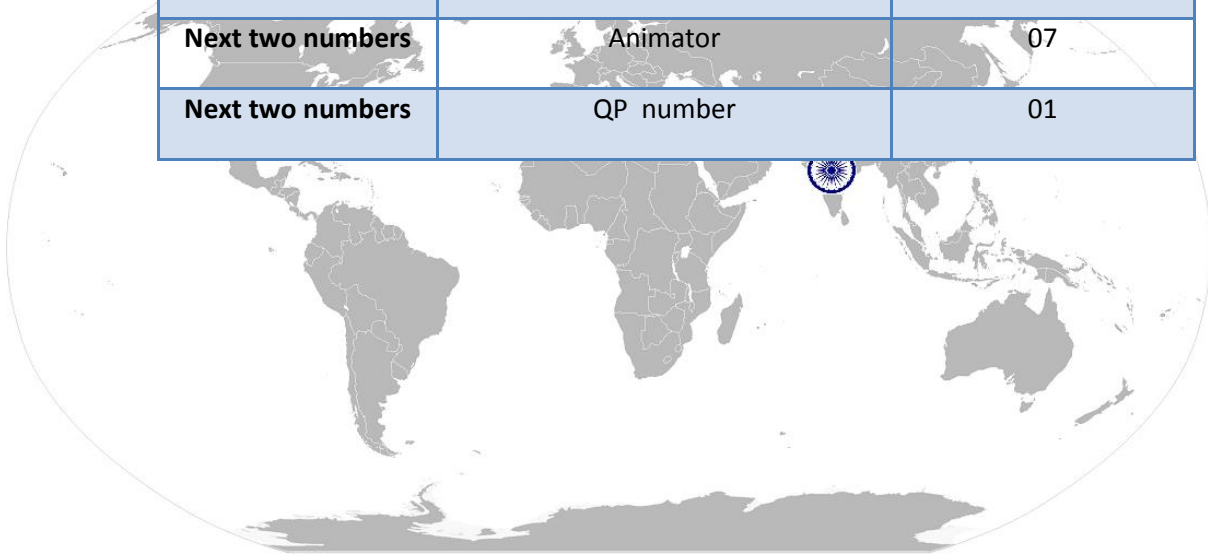


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The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
...	...

Sequence	Description	Example
Three letters	Media and Entertainment	MES
Slash	/	/
Next letter	Whether QP or NOS	Q
Next two numbers	Animator	07
Next two numbers	QP number	01



## **CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role:** Animator

**Qualification Pack:** MES Q 0701

**Sector Skill Council:** Media and Entertainment Skills Council

	NOS	NOS NAME	Weightage
1	MES/ N 0701	<b>Understand Animation Requirements</b>	20%
2	MES/ N 0702	<b>Conceptualize creative ideas for Production</b>	15%
3	MES/ N 0703	<b>Plan Tools and Workflow</b>	15%
4	MES/ N 0704	<b>Produce 2D Animation</b>	45%
5	MES/ N 0705	<b>Produce 3D Animation</b>	
6	MES/ N 0706	<b>Produce Stop Motion Animation</b>	
7	MES/N 0104	<b>Maintain workplace Health &amp; Safety</b>	5%
		Note: MES/N 0704, MES/N 0705 & MES/N 0706 Student would be assessed for only one NOS out of the three NOS's	100%

### **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 & Practical part will be based on knowledge bank of questions created by the AA and approved by 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% cumulatively (Theory and Practical).
- 6 In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack



<b>Compulsory NOS</b>					
Total Makes : 400					
Assessment outcomes	Assessment criteria for outcomes	Total marks	Marks Allocation		
			Out of	Theory	Skills Practical
<b>MES/ N 0701 (Understand Script Requirements)</b>	PC1. Understand, clarify and agree on the project brief from the Director, Art Director and Supervisors. This could include the following: Objective, concept/style of animation, script, storyboard and animatic, do's and don'ts for animation, target audience, project pipeline/ asset management/ scheduling and activities, project timelines and constraints, production brief/ key milestones for delivery, creative brief/desired look of the end-product – using similar projects for reference, quality standards to be maintained, technical details like aspect ratio, output format, list of deliverables and their respective output format	100	35	20	50
	PC2. Understand various parameters of the end-product that would influence production requirements (e.g. duration, style, number of characters, subject and storyline, culture and period the story is based in, effects required, format, music etc.)		25	10	
	PC3. Understand the treatment of the output that needs to be produced and the volume of the final output		20	10	
	PC4. Understand the shot sequence (high-level) and continuity/consistency Required		10	5	
	PC5. Select an appropriate animation technique based on the output required. This could include: 2D animation: cell animation e.g. early episodes of tom and jerry (series), cut		10	5	

	<p>out animation e.g. charlie and lola (series), limited animation e.g. south park, empire square (series)</p> <p>3D Animation: realistic 3D animation e.g. beowulf, avatar, gollum (movies), semirealistic e.g. little krishna, brave (movies), toon animation e.g. kung-fu panda (movie), simulation of traditional &amp; stop motion techniques e.g. vineta cucini and amaron battery (advertisements, flushed away (movie), stop-motion animation, VFX, stereo conversion</p>				
		Total	100	50	50

Assessment outcomes	Assessment criteria for outcomes	Marks Allocation			
		Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0702 (Conceptualise creative ideas for Production)</b>	PC1. Research and find character references that would aid and inspire designs	100	40	20	50
	PC2. Generate creative concepts and ideas for production using visualization and using references from the concept art-work prepared by the designers, drawing from imagination, acting and performing		25	15	
	PC3. Present ideas to the Director, Art Director and Supervisors		20	10	
	PC4. Agree on the style of the work-product that would most appeal to the target audience in sync with the schedule and show requirement"		15	5	
		Total	100	50	50
Assessment outcomes	Assessment criteria for outcomes	Marks Allocation			
		Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0703 (Plan Tools and Workflow)</b>	PC1. Stay apprised of the various types of software tools available for production in the market	100	30	15	50
	PC2. Research and Suggest the best tool for the production		30	15	
	PC3. Evaluate timelines for production in accordance to the production schedule (supervisor)		20	10	
	PC4. Read, follow and update the production workflow/schedule, deliverables and timelines with the Director, Art Director and Supervisors"		20	10	
		Total	100	50	50

Assessment outcomes	Assessment criteria for outcomes	Marks Allocation			
		Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0104 (Maintain workplace health and safety Description)</b>	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 organizational procedures and warn other people who may be affected		10	5	
	PC11. Follow organization'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	
	<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>	

Electives					
Elective 1. Produce 2D Animation					
Total Marks: 100				Marks Allocation	
Assessment Outcomes	Assessment criteria for outcomes	Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0704 (Produce 2D Animation)</b>	P1. Follow the storyboard for composition i.e. positioning of the character with respect to the background and camera to create the desired animation	100	10	5	50
	P2. Draw/source key frame drawings to establish a reference point for strong poses		10	5	
	PC3. Incorporate audio/music assets		5	3	
	PC4. Create shadows for animation using pre-defined lighting keys		5	2	
	PC5. Bring assets together to produce sequences and scenes/shots as per requirements and ensuring continuity		5	3	
	PC6. Ensure that the hook-up/transition from one scene to another is done properly		5	2	
	PC7. How to work with layers and get a good perspective view		5	3	
	PC8. Work effectively within the team and with other departments, namely, assets, lighting and effects		5	2	
	PC9. Critically review animation produced, keeping in mind the creative and design specifications and producer brief		5	3	
	"PC10. Refine the output based on deviations observed and/or modifications required within requisite timelines		5	2	
	PC11. Ensure that the work-products meet quality standards (so that they can be approved with minimum iterations) and are delivered within the requisite"		5	2	
	PC12. How to achieve the required output targets		5	3	
	PC13. Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use		5	2	
	PC14. Train junior animators to improve their quality ability to deliver within given timelines		5	2	

	PC15. Apply principles of design, 2D animation and film-making to create sequences and scenes/shots		10	5	
	PC16. Apply varied techniques and styles based on the requirement		5	3	
	PC17. Use graphics and animation software to produce in-between poses for Animation		5	3	
		Total	100	50	50

Electives					
Elective 2. Produce 3D Animation					
Total Marks: 100				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0705 (Produce 3D Animation)</b>	PC1. Apply principles of design, 3D animation and film-making to create sequences and scenes/shots	100	20	10	50
	PC2. Follow the storyboard for composition i.e. positioning of the character model with respect to the BG & camera to create the desired animation		10	5	
	PC3. Animate expressions and lip movements to match dialogues and sound		10	5	
	PC4. Communicate requirements to camera and lighting for motion capture, where required		5	2	
	PC5. Work with motion capture data received from the motion/ performance capture studio (clean up the data and map animation data to 3D models)"		5	3	
			10	5	
	PC6. Prepare a prototype work product/pre-visualisation for review		5	3	
	PC7. Refine the product until the required creative effect is achieved		5	2	
	PC8. Organise, store and manage work-products into file formats using standard file naming conventions and maintain assets for further use "		5	3	
	PC9. Work effectively within the team and with other departments, namely, design, modelling/rigging, texturing, editing, rendering and compositing"		5	3	
	PC10. Critically review animation produced, keeping in mind the creative and design specifications and producer brief "		5	3	
PC11. Refine the output based on deviations observed and/or modifications	5	3			
	Total	100	50	50	

Electives					
Elective 3. Produce Stop Motion Animation					
Total Marks: 100				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total marks	Out of	Theory	Skills Practical
<b>MES/ N 0706 (Produce Stop Motion Animation)</b>	PC1. Understand requirements including the way the characters will act/move in accordance to the storyboard "	100	20	10	50
	PC2. Move characters and construct/compose a shot in accordance to the script and storyboard as a prototype		20	10	
	PC3. Animate stop motion characters (puppets or models) in accordance to the script and directors instructions		20	10	
	PC4. Contribute creative ideas during the animation process		20	10	
	PC5. Apply stop motion animation techniques including traditional frameby-frame capture, Claymation and cut-out using computer-generated tools		20	10	
		Total	100	50	50