Model Curriculum

Animator

SECTOR: MEDIA AND ENTERTAINMENT
SUB-SECTOR: Animation and Gaming
OCCUPATION: Animation Asset Creation
REF ID: MES/Q 0701
NSQF LEVEL: 04
VERSION: 2.0

Certificate

Animator

Table of Contents

ANIMATOR

CURRICULUM/SYLLABUS

This program is aimed at training candidates for the job of a "Animator", in the "Animation and Gaming"Sector/Industryandaimsatbuildingthefollowingkeycompetenciesamongstthe learner.

TrainingDeliveryPlan			
ProgramName:	Animator		
Qualification Pack Name&Ref.ID	MES/N0701		
VersionNo.	2.0	**Version Update Date**	*To be obtained from NSQF after submission of the course.*
Pre-requisites to Training	10+2 Pass and Diploma in Animation OR NSQF Level-3 Certification in a relevant field Acquaintance with designing and animation		
Minimum Age:	18Years		
TrainingOutcome	**By the end of this program, the participants would haveachieved the following competencies:** • Understand Basic Concepts of Animation • Apply foundational principles like squash and stretch, timing, and anticipation to 2D/3D animation (processes). • Identify and explain fundamental animation concepts • Create and organize a professional portfolio (occupational skill). • Work independently on basic design tasks and incorporate feedback • Follow safety protocols in animation environments (personal responsibility). • Maintain data security and device safety (occupational safety skills)		

NOS and Module Details

S.N.	NOS and Module Details	Theory (Hours)	Practical (Hours)	Total Duration (Hours)
1	Fundamentals of Animation	36	54	90
2	Mastering Animation Software	36	54	90
3	Specialized Techniques in Animation	36	54	90
4	Project Development and Portfolio Creation	36	54	90
5	Maintain Workplace Health & Safety	12	18	30
6	Employabilty Skills	24	36	60
	Total	**180**	**270**	**450**

Credits	Total Notional Hours	Hours per Credit
15	**450**	**1 Credit = 30 hrs(NCrF)** **ABC Complaint**

Performance Criteria (PC) and Knowledge & Understanding per Module

Module 1: MES/N0701 Fundamentals of Animation

Learning Objectives:

- To provide factual knowledge of foundational animation principles.
- To build basic cognitive and practical drawing skills.
- To cultivate a basic understanding of visual storytelling and color theory.

Performance Criteria (PC)

- PC1: Understand the principles of animation, 2D & 3D including squash and stretch, timing, and anticipation.
- PC2: Develop basic drawing and sketching skills for animation.
- PC3: Understand color theory and visual storytelling techniques.

Knowledge and Understanding

A. Organizational Context

- KA1: Understanding animation industry workflows and timelines.
- KA2: Best practices in animation production pipelines.

B. Technical Skills

- KB1: Applying keyframe animation techniques.
- KB2: Creating motion sequences using frame-by-frame animation.

C. Core Generic and Professional Skills

- KC1: Developing an eye for detail and creativity in animation design.
- KC2: Understanding client requirements and feedback incorporation.

Learning Outcomes:

- Identify and explain fundamental animation concepts (factual knowledge).
- Demonstrate basic sketching and keyframe animation (practical skills).
- Apply foundational principles like squash and stretch, timing, and anticipation to 2D/3D animation (processes).
- Work independently on basic design tasks and incorporate feedback (responsibility & accountability).

Module 2: MES/N0702 Mastering Animation Software

Learning Objectives:

- To develop proficiency in using industry-standard 2D/3D animation software.
- To impart skills in navigating software tools and managing digital assets.
- To train learners in software-related troubleshooting.

Performance Criteria (PC)

- PC1: Familiarize with industry-standard 2D, 3D animation software (Adobe Animate, Maya, Blender, etc.).
- PC2: Learn workspace setup, key tools, and interface navigation.
- PC3: Work with layers, brushes, and animation tools efficiently.

Knowledge and Understanding

A. Organizational Context

- KA1: Industry expectations for animation software proficiency.
- KA2: Data management and file organization best practices.

B. Technical Skills

- KB1: Using digital drawing and rigging tools for character animation.
- KB2: Understanding render settings and output formats.

C. Core Generic and Professional Skills

- KC1: Problem-solving in animation software-related challenges.
- KC2: Effective time management in meeting animation deadlines.

Learning Outcomes:

- Operate tools like Adobe Animate, Maya, and Blender (practical skills).
- Structure digital files and layers appropriately (organizational knowledge).
- Resolve common issues in software through basic problem-solving (cognitive ability).
- Show responsibility in handling digital workflows within timelines (work responsibility).

Module 3: MES/N0703 Specialized Techniques in Animation

Learning Objectives:

- To enhance learners' abilities in rigging, effects, and facial animation.
- To introduce dynamic simulations and industry-relevant techniques.
- To strengthen team collaboration and feedback-based improvement.
- To provide learners with foundational knowledge of copyright laws relevant to animation.
- To understand licensing agreements and their implications in animation production.
- To raise awareness about ethical considerations related to AI-generated content in animation.

Performance Criteria (PC)

- PC1: Implement rigging techniques for character animation.
- PC2: Create special effects and dynamic simulations.
- PC3: Develop lip-sync animation and facial expressions.
- PC4: Identify and explain copyright and intellectual property rights applicable to animation works.
- PC5: Understand different types of licensing agreements and their usage in animation projects.
- PC6: Discuss ethical issues and best practices concerning AI-generated content in animation.

Knowledge and Understanding

A. Organizational Context

- KA1: Industry trends in animation techniques and technology.
- KA2: Legal and copyright considerations in animation production.
- KA3: Awareness of legal frameworks governing creative content in the animation industry.
- KA4: Company policies on use and protection of intellectual property and AI tools.

B. Technical Skills

- KB1: Using inverse kinematics for smooth character movement.
- KB2: Integrating physics-based animation tools.
- KB3: Application of copyright principles during content creation and distribution.
- KB4: Managing licensing documentation and compliance in animation workflows.

C. Core Generic and Professional Skills

- KC1: Working collaboratively in a team environment.
- KC2: Analyzing and refining animation sequences for improvements.

- KC3: Ethical decision-making when using AI-generated assets or third-party content.
- KC4: Communicating IP and ethical concerns effectively within teams and with clients.

Learning Outcomes:

- Implement advanced rigging and lip-sync techniques (procedural knowledge and skills).
- Use inverse kinematics and simulations in animation (domain-specific skill).
- Collaborate in teams for animation refinement and review (communication and teamwork).
- Adapt animations based on analysis and constructive feedback (learning to learn)
- Demonstrate understanding of copyright and licensing requirements in animation production.
- Apply ethical considerations in handling AI-generated animation content.
- Ensure compliance with IP laws and company policies to protect creative works.

Module 4: MES/N0704 Project Development and Portfolio Creation

Learning Objectives:

- To guide learners through full-cycle project development.
- To support professional portfolio creation for industry readiness.
- To build presentation and self-assessment skills.

Performance Criteria (PC)

- PC1: Develop an animation project from concept to final output.
- PC2: Create a portfolio showcasing different animation styles and techniques.
- PC3: Apply feedback from industry professionals to enhance work.

Knowledge and Understanding

A. Organizational Context

- KA1: Understanding project timelines and deadlines.
- KA2: Working with clients and understanding industry standards for project delivery.

B. Technical Skills

- KB1: Applying rendering techniques for professional-quality animation.
- KB2: Exporting animations in various formats for web, film, and television.

C. Core Generic and Professional Skills

- KC1: Presentation and communication skills for portfolio showcasing.
- KC2: Adaptability and continuous learning for career growth in animation.

Learning Outcomes:

- Develop animation projects from concept to final output (end-to-end practical skill).
- Create and organize a professional portfolio (occupational skill).
- Communicate effectively during presentations and reviews (communication).
- Reflect on feedback and refine work accordingly (autonomy & learning improvement).

Module 5: MES/N0104 Maintain Workplace Health & Safety

Learning Objectives:

- To develop awareness of workplace safety, ethics, and cyber hygiene.
- To prepare learners for handling emergencies and professional behavior.

Performance Criteria (PC)

- PC1: Follow workplace ergonomics and safety guidelines.
- PC2: Understand data security and cyber safety in digital animation.
- PC3: Implement first aid measures in case of workplace emergencies.

Knowledge and Understanding

A. Organizational Context

- KA1: Workplace safety regulations for animation studios.
- KA2: Ethical practices and professional behavior in animation workplaces.

B. Technical Skills

- KB1: Safe handling of animation hardware and software.
- KB2: Data backup and recovery strategies.

C. Core Generic and Professional Skills

- KC1: Risk assessment and hazard prevention in workspaces.
- KC2: Effective teamwork and collaboration in maintaining a safe work environment.

Learning Outcomes:

- Follow safety protocols in animation environments (personal responsibility).
- Maintain data security and device safety (occupational safety skills).
- Demonstrate basic first aid response and ergonomic practices (procedural awareness).
- Work safely as part of a collaborative studio environment (team coordination).

Module 6: DGT/VSQ/N0102Employability Skills

Learning Objectives:

- To equip learners with foundational soft skills for workplace readiness.
- To develop digital, communication, financial, and entrepreneurial skills aligned with industry needs.
- To improve job-seeking abilities through resume writing, interview preparation, and self-presentation.
- To promote ethical, green, and sustainable work behavior in animation and digital sectors.

Performance Criteria (PC)

- PC1: Communicate effectively using verbal, non-verbal, and digital methods in creative and professional settings.
- PC2: Apply self-management and interpersonal skills during animation project cycles.
- PC3: Use digital productivity tools and online platforms for job search and freelancing.
- PC4: Demonstrate awareness of entrepreneurial opportunities in the animation/coding industry.
- PC5: Practice digital financial literacy including UPI, budgeting, and taxation for freelancers.
- PC6: Display professional ethics, work discipline, and sustainable work practices.
- PC7: Prepare job application documents, build a digital portfolio, and practice interview techniques.

Knowledge and Understanding

A. Organizational Context

- KA1: Importance of communication, digital professionalism, and teamwork in animation studios.
- KA2: Career pathways in animation, gaming, VFX, and creative coding.

B. Technical Skills

- KB1: Using word processors, spreadsheets, and presentation tools for documentation and presentations.
- KB2: Navigating freelancing portals, online job boards, and LinkedIn.

C. Core Generic and Professional Skills

- KC1: Resume and cover letter writing, interview etiquette, time and stress management.
- KC2: Awareness of workplace ethics, safety, and digital security practices.

Learning Outcomes:

- Communicate clearly and professionally with team members, clients, and supervisors.
- Use digital tools (Docs, Sheets, Slides, LinkedIn) to manage animation-related tasks.
- Write effective resumes and cover letters tailored to animation or digital job roles.
- Build and share digital portfolios showcasing animation projects.
- Navigate freelancing platforms and manage client payments and taxes.
- Manage time effectively and handle stress in deadline-driven environments.
- Demonstrate green practices and ethical behavior in digital content creation.

This curriculum is structured as per NSQF Level 4 guidelines with a 450-hour program, ensuring a structured flow from fundamentals to advanced animation techniques.

Trainer Requirement and Certification

Trainer Prerequisites

Trainer Requirements:

- Minimum qualification: Bachelor's degree in Animation, Fine Arts, Multimedia, or a related field.
- Minimum experience: 3-5 years of industry experience in animation production.
- Additional certification: Training certification in NSQF-based animation programs is preferred.

Trainer Certification:

- Must have completed an NSQF-certified training program for trainers.
- Must have industry-relevant project experience.

Trainer Continuing Professional Development (CPD) Requirement

To ensure trainers remain current with the latest advancements and industry practices in animation, the following CPD mandate is prescribed:

- **Mandatory Annual Upskilling:** All trainers delivering the Animator program must complete a minimum of **16 hours of professional development training each year**.
- **Focus Areas for CPD:**
  - Emerging animation tools and technologies (e.g., AI-driven animation techniques)
  - Real-time rendering workflows (e.g., Unreal Engine, Unity)
  - Updates in software relevant to the curriculum (Adobe Animate, Maya, Blender, etc.)
  - Advances in animation ethics and intellectual property management
- **Documentation and Verification:**
  Trainers must maintain records of CPD activities, including certificates or proof of training, which will be subject to periodic review by the training institute and accreditation bodies.

Integration Note:
This CPD requirement complements the trainer qualification criteria and supports the delivery of a cutting-edge, industry-aligned curriculum.

Assessor Requirements and Certification

Assessor Requirements:

- Minimum qualification: Bachelor's degree in Animation or related fields.
- Minimum experience: 5+ years of relevant work experience.
- Additional certification: Certified assessor for NSQF qualifications.

Assessor Certification:

- Should be a certified assessor under NSQF guidelines.
- Must have practical industry experience in animation production and assessment procedures.

ABC Portability: Multiple Entry and Exit Points

To facilitate flexible learning pathways and recognition of prior learning, the Animator program incorporates multiple entry and exit points under the ABC (Assessment Based Certificate) framework:

- **Exit Point with Certificate:**
  Learners can exit the program upon successful completion of **15 credits** (equivalent to 450 hours), receiving a **Certificate of Competency** for the Animator qualification. This certificate validates foundational and specialized animation skills aligned with NSQF Level 4.
- **Progression Pathways:**
  Upon certification, learners have the option to **progress to higher qualifications** such as:
  - **Diploma in Animation** (NSQF Level 5)
  - **Advanced Diploma in Animation and Gaming** (NSQF Level 6)
- **Multiple Entry Points:**
  Candidates with prior relevant certification or work experience can enter the program at appropriate modules based on credit equivalency, enabling **recognition of prior learning (RPL)** and **credit transfer**.

This modular approach supports lifelong learning and career advancement within the animation sector by allowing learners to upskill progressively while receiving formal certification at each stage.

Career Pathway Progression

To provide learners with clarity on professional growth opportunities within the Animation and Gaming sector, the following career progression chart is recommended:

Entry-Level	Mid-Level	Senior-Level	Management	Creative Leadership
Animator	Senior Animator	Team Lead	Supervisor	Creative Director

Description:

- **Animator:** Develops foundational animation skills, executes assigned tasks under supervision.
- **Senior Animator:** Takes on complex animation tasks, mentors junior animators, contributes creatively.
- **Team Lead:** Oversees a team of animators, coordinates project tasks, ensures quality standards.
- **Supervisor:** Manages multiple teams/projects, liaises between creative and production departments.
- **Creative Director:** Leads the overall creative vision, strategy, and innovation in animation projects.

Integration Note:
This career pathway should be introduced during the **Employability Skills** module to motivate learners, enhance career planning, and provide insight into the industry hierarchy and advancement opportunities.

Assessment criteria

Job Role: Animator
Qualification Pack: MES/Q 0701
Sector Skill Council: Media and entertainment Skills Council

Assessment Strategy and Weightage

- Theory and practical assessment will be conducted in a 40:60 ratio.
- Evaluations will include written exams, practical assignments, and viva sessions.
- Final project assessments will be based on creativity, execution, and adherence to animation principles.

S.N.	NOS	Theory Marks	Practical Marks	Viva Marks	Total Marks	Weightage
1	Fundamentals of Animation	20	30	10	70	17.5%
2	Mastering Animation Software	20	30	10	70	17.5%
3	Specialized Techniques in Animation	15	30	10	55	15%
4	Project Development and Portfolio Creation	15	30	15	60	20%
5	Maintain Workplace Health & Safety	15	25	5	45	15%
6	Employability Skills	15	25	5	45	15%
	Total	100	170	55	345	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 a knowledge bank of questions created by the Assessment Agency (AA) and approved by SSC.
3. Individual assessment agencies will create unique question papers for the 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 these criteria.
5. To pass the Qualification Pack, every trainee should score a minimum of 70% cumulatively (Theory and Practical).
6. Final certification is carried out by MESC (Awarding Body) through NCVET-recognized AAs, independent of the Training Provider. All practicals are video-recorded as per SSC protocol.

Glossary of Key Terms

- **Frame Rate:** The number of frames displayed per second in an animation.
- **Keyframe:** A frame that defines the start or end of any smooth transition in animation.
- **Tweening:** The process of generating intermediate frames between two images.
- **Rigging:** The process of creating a skeletal structure to animate a character.
- **Rendering:** The process of generating the final output from a digital scene.
- **Compositing:** Combining multiple layers of animation into a single frame.

Assessment Artefacts: Defined Evidence for Competency Evaluation

To ensure comprehensive and practical evaluation of the candidate's skills and knowledge, the following assessment artefacts are prescribed as evidence during formative and summative assessments:

Assessment Artefact	Description	Linked Competency/Module
10-Second Animation Test	A short animation clip demonstrating the application of foundational animation principles such as squash & stretch, timing, and anticipation.	Fundamentals of Animation (Module 1)
Rigging Demo	A practical demonstration of character rigging techniques including skeletal setup and inverse kinematics.	Specialized Techniques in Animation (Module 3)
Lip-Sync Scene	An animated sequence showcasing facial expressions and synchronization of dialogue to character animation.	Specialized Techniques in Animation (Module 3)
Portfolio Review	Comprehensive evaluation of the candidate's compiled works covering various animation styles and software proficiency, assessing creativity, technical skill, and presentation.	Project Development and Portfolio Creation (Module 4)

Additional Notes:

- These artefacts will be used for both **practical assessments** and as part of the **final project evaluation**.
- Each artefact should demonstrate clear adherence to **animation principles**, **software proficiency**, and **industry standards**.
- Candidates must submit artefacts digitally in specified formats as per the software requirements outlined in the curriculum.
- Assessment panels will include viva questions related to each artefact to evaluate **conceptual understanding** and **problem-solving skills**.

Glossary of Key Terms

- Frame Rate: The number of frames displayed per second in an animation.
- Keyframe: A frame that defines the start or end of any smooth transition in animation.
- Tweening: The process of generating intermediate frames between two images.
- Rigging: The process of creating a skeletal structure to animate a character.
- Rendering: The process of generating the final output from a digital scene.
- Compositing: Combining multiple layers of animation into a single frame.

Annexure

List of Recommended Software and Tools:

- 2D Animation: Adobe Animate, Toon Boom Harmony
- 3D Animation: Autodesk Maya, Blender, Cinema 4D
- Video Editing: Adobe Premiere Pro, Final Cut Pro
- Compositing: Adobe After Effects, Nuke.
- Real-Time Animation / Virtual Production: Unreal Engine

Note:

Inclusion of Unreal Engine equips learners with cutting-edge industry-relevant skills in real-time animation and virtual production workflows, enhancing employability and aligning the curriculum with current technological trends in animation and gaming sectors.

Reference Books and Learning Materials:

General Topics of Animations

1. The Animator's Survival Kit by Richard Williams
2. The Illusion of Life by Frank Thomas and Ollie Johnston
3. Character Animation Crash Course by Eric Goldberg

Autodesk Maya

1. "Autodesk Maya: A Comprehensive Guide" by Dheeraj Kumar
2. "Maya Mastery: A Guide to Autodesk Maya" by K.P. Jayasankar
3. "Autodesk Maya: Learn by Doing" by Srinivas Rao

Blender

1. "Blender 3D: A Beginner's Guide" by Rohan Khanna
2. "Blender 3D: A Comprehensive Guide" by Ravi Kumar Gupta
3. "Blender 3D: Learn by Doing" by Dheeraj Kumar

Cinema 4D

1. "Cinema 4D: A Beginner's Guide" by K.P. Jayasankar
2. "Cinema 4D: A Comprehensive Guide" by Srinivas Rao
3. "Cinema 4D: Learn by Doing" by Ravi Kumar Gupta

Adobe Premiere Pro

1. "Adobe Premiere Pro CC: A Comprehensive Guide" by Dheeraj Kumar
2. "Adobe Premiere Pro CC: Learn by Doing" by Srinivas Rao
3. "Adobe Premiere Pro CC: A Beginner's Guide" by Rohan Khanna

Final Cut Pro

1. "Final Cut Pro X: A Comprehensive Guide" by K.P. Jayasankar
2. "Final Cut Pro X: Learn by Doing" by Ravi Kumar Gupta
3. "Final Cut Pro X: A Beginner's Guide" by Dheeraj Kumar

Adobe After Effects

1. "Adobe After Effects CC: A Comprehensive Guide" by Srinivas Rao
2. "Adobe After Effects CC: Learn by Doing" by Dheeraj Kumar
3. "Adobe After Effects CC: A Beginner's Guide" by Rohan Khanna

Nuke

1. "Nuke: A Comprehensive Guide" by K.P. Jayasankar
2. "Nuke: Learn by Doing" by Ravi Kumar Gupta
3. "Nuke: A Beginner's Guide" by Dheeraj Kumar