## SELF ASSESSMENT GUIDE

**Qualification:** 3D ANIMATION NC III  

### Units of Competency Covered:
- Create 3D Models for Animation
- Apply Shader and Texture on 3D Models
- Set Character Rigging
- Animate Character
- Light and Render Animation Scene

### Instruction:
- Read each of the questions in the left-hand column of the chart.
- Place a check in the appropriate box opposite each question to indicate your answer.

### Can I?

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**COC 1: Create 3D Models for Animation**

### Identify 3D Modelling requirements
- Identify and discuss with relevant personnel design brief on creative and technical requirements including production specifications and references.*
- Identify and prepare all necessary equipment and required peripherals to be used according to task to be undertaken.

### Identify and select 3D animation software
- Identify for suitability range of industry’s standard 3D animation software including computer-assisted techniques.
- Assess computer hardware and software vis-à-vis creative and technical requirements and production specifications.
- Select 3D animation software in consultation with the appropriate personnel to ensure that output met requirements.
- Identify selected 3D animation software in accordance with the specified delivery platform.

### Create 3D models and images*
- Apply familiarization of tools and interface of the selected program identified to meet creative and technical requirements.*
- Label file organization: (naming convention, hierarchies and data base structure) system based on parts and details.*
- Appropriately identify 3D models according to type, tools and techniques required based on concept design and model sheet.*

- Complete 3D models produced with relevant details from technical requirements and specifications.*

- Comply 3D Models produced with the design provided in the model sheet.*

### Unwrap topology

- Identify projection mapping based on design specification and 3D model provided.

- Cut and divide seam in accordance to texture assignment.

- Unfold seam in texture editor.

- Export UV layout from texture editor.

### Edit/revise 3D Models

- Address and review corrections to 3D models in accordance to standards required by relevant personnel.

- Relabel 3D models clearly based on revision notes.

- Check and revise Final models’ file organization and are securely stored in accordance with company procedures.*

### COC 2: Apply Shader and Texture on 3D Models

#### Identify Shading and Texturing Requirements

- Identify and discuss object shading and texturing creative requirements including production specifications with relevant personnel based on the creative requirements.

- Identify, shade and texture tools and techniques relevant to the 3D Models, creative and technical requirements.

- Identify and prepare required peripherals and equipment to be used according to task to be undertaken.

#### Gather different shader and texture references

- Determine creative and technical requirements to the specific 3D models for texturing purposes.
- Gather or stimulate texture references and sources based on approved design.
- Use photo editing software and required peripherals for modifying textures.

**Create UV mapping and shading**

- Check and edit UV map projection according to creative and technical requirements.
- Identify, apply and manipulate shading nodes for specific object material.
- Render test shaded models with basic lighting.

**Create texture map**

- Identify and apply tools and features of the selected program to meet creative and technical requirements.
- Sets-up models for texture and lighting.
- Export UV map to image editing software for creating texture in accordance precise detail specification.
- Apply pre-defined images as texture using texture mapping parameters as required based on design.
- Test renders images with proper lighting to preview the effect of pre-defined texture applied on 3D Model.
- Prepare, labels and stores back-ups of texture images in accordance with company procedures and industry standards of documentation.

**Test and evaluate 3D textures**

- Ensure 3D texture cross platform image transfers and interface calibration to meet the requirements of technical and creative specifications.
- Use UV texture mapping test to check distortions on 3D surface.
- Present to relevant personnel proper lighting to render 3D models for review, comments and recommendations for the scene environment.
- Discuss with the relevant personnel identified changes in accordance to agreements incorporated to the prepared models and texture.
- Revise and refine image texture using photo editing software based on technical requirements.
- Obtain from relevant personnel final agreement and approval for the final rendered models with texture based on company standard operating procedure.

**COC 3: Set Character Rigging**

**Identify 3D Model characterization**
- Identify and group moving parts of 3D Model into sections based on approved design.*
- Assign attitude and behaviour to 3D Models based on approved design.

**Gather 3D model action references**
- Gather or simulate dynamic character references based on approved design.*
- Determine movement constraints based on physical limitations.

**Create joints for 3D models**
- Apply rigging specifications based on the requirements of animation.
- Clearly labels naming convention system for joints based on technical requirements.
- Properly labels and places created controllers on corresponding joints based on design requirements.
- Assign and apply specific constraints to controllers and target object/s based on technical requirements.*
- Test Rig for performance of model integrity and movement based on the design requirements.

**Create blend/ morph shapes**
- Quantify and check number of polygons for consistency based on the design
- Create asset of blend /morph shapes based on design specification.*
- Assign asset of blend /morph shapes to rigged model based on approved 3D model
- Test asset of blend /morph shapes for movements based on approved 3D model.*
- Maintain model design during modification based on technical requirements.

**Bind skin to rigged joints**

- Apply Skin/bind weight mapping to 3D Model based on technical requirements.
- Test geometry for model integrity based on design and animation requirements.
- Edit skin/bind weight to correct value distribution based on technical requirements*.
- Perform final test in preparation for animation process based on storyboard.

**COC 4: Animate Character**

**Gather action references**

- Gather and obtain source references and assets relevant to model character description.
- Discuss animation style movement and storyboard with relevant personnel based on company policies.
- Include technical parameter based on project descriptions based on technical requirements.
- Identify animatics and blocking based on client specifications.
- Record audio for lip sync according to timing specified on the storyboard.

**Create key poses**

- Create and place key poses and expressions strategically in the animation timeline according to scene duration.
- Apply principle of animation in accordance with scene requirements.
- Evaluate and adjust key poses for clarity in accordance to storyboard description.
- Apply lip-syncing action based on dialogue soundtrack.

**Adjust and edit timing**

- Edit movement based on notes.
- Use graph editor to edit and smoothen the action.

- Adjust action poses in relation with other elements involved in the scene based on design requirements.

- Review result of revisions in accordance to animation scene requirements.

**Create animation preview**

- Set appropriate camera view and movements for the scene based on storyboard requirements.

- Set playback speed in real time accordance to project frame rate requirement.

- Set preferences for the animation preview.

- Determine video file format in accordance to project requirements.

- Acquire final approval of test preview from relevant personnel based on company standard operating procedure.

- Save and submits approved scenes to designated production personnel based on company standard operating procedure.

**COC 5: Light and Render Animation Scene**

**Identify rendering specifications**

- Determine software renderer based on project requirements.

- Set and imports render settings in the render properties based on technical requirements.

- Check additional rendering requirements based on project requirements.

**Assemble scene elements**

- Open final animated scene file for assembly based on the story board.

- Gather all relevant objects into the scene from project library and production assets based project requirements.

- Arrange all scene elements based on the storyboard

**Add light sources to the scene**
- Identify types of light source for proper.
- Position light source based on scene requirements.
- Preview and checks lit scene base on scene requirements.
- Edit light source base on revision notes.
- Render partial frame for quality checks based project requirement.
- Acquire final approval from relevant personnel based on company policies.

### Plan and establish effective rendering procedures.
- Identify render type according to project specification.
- Identify render passes and layers according to creative and technical specification.
- Check rendering schedule based on hardware resources availability, production deadline and priority.
- Determine and balance hardware limitations for production efficiency based on technical requirements.
- Manage colour profile for consistency in accordance with post production output specifications.
- Calculate estimated render times per scene based on scene duration.

### Perform full software render of animation scene or sequence.
- Assign scene to a production rendering schedule based on project requirements and priorities.
- Execute final rendering on the designated rendering schedule based on design.
- Save and submit final rendered scene to relevant personnel based on company policies.

### Post edit rendered scenes.
- Edit final and rendered scene in compositing software.
- Edit rendered scene with audio as final movie.

I agree to undertake assessment in the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.

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