

**SKILLS FRAMEWORK FOR MEDIA  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

|                                    |   |  |  |   |  |                |
|------------------------------------|---|--|--|---|--|----------------|
| <b>TSC Category</b>                | Visual Graphics   |  |  |   |  |                |
| <b>TSC Title</b>                   | 3D Animation  |  |  |   |  |                |
| <b>TSC Description</b>             | Create 3D animated sequences depicting motion through computer-based visual graphics for use in films, games or other media content |  |  |   |  |                |
| <b>TSC Proficiency Description</b> | <b>Level 1</b>  | <b>Level 2</b>   | <b>Level 3</b>   | <b>Level 4</b>  | <b>Level 5</b>   | <b>Level 6</b> |
|                                    |   | <b>MED-MPN-2056-1.1</b>  | <b>MED-MPN-3056-1.1</b>  | <b>MED-MPN-4056-1.1</b>   | <b>MED-MPN-5056-1.1</b>  |                |
|                                    |   | Create 3D animated sequences to support the development of 3D animated media to meet production requirements   | Develop and optimise 3D animation sequences for character and specialised animation to meet the production requirements  | Lead the creative and technical development of 3D animated media to achieve the artistic and technical goals of production  | Define artistic direction and creative approaches to direct the development of 3D animated media   |                |
| <b>Knowledge</b>                   |   | <ul style="list-style-type: none"> <li>• Concept art, storyboards and animatics</li> <li>• Principles of Animation</li> <li>• Motion in the natural world</li> <li>• Realistic, stylised and exaggerated motions in animation</li> <li>• Depicting mass, density and elasticity of bodies through animated motions</li> <li>• Animation techniques including keyframing, motion captures, physics-based animation</li> <li>• Features and functionalities of game engines</li> <li>• Creative guidelines and style guides</li> </ul> | <ul style="list-style-type: none"> <li>• Production scripts</li> <li>• Concept art, storyboards and animatic</li> <li>• Processes involved in 3D animation</li> <li>• Fundamentals of Newtonian physics and kinematics</li> <li>• Realistic, stylised and exaggerated motions in animation</li> <li>• Animation techniques including keyframing, motion captures, physics-based animation</li> <li>• Scripting and visual programming techniques</li> <li>• Motion simulation techniques</li> <li>• Asset optimisation techniques and methods</li> </ul> | <ul style="list-style-type: none"> <li>• Production scripts</li> <li>• Creative vision and artistic direction of the production</li> <li>• Sensitivity of acting and performance</li> <li>• Creative visualisation of animated sequences</li> <li>• Impact of timing on the artistic characteristics of the animation</li> <li>• Capabilities and limitations of production tools and technologies</li> <li>• Asset pipelines and production workflows</li> </ul> | <ul style="list-style-type: none"> <li>• Industry standards and upcoming technologies and techniques in 3D animation</li> <li>• Best practices in 3D animation processes</li> <li>• Asset pipelines and production workflows</li> <li>• Tools required to implement production pipelines</li> <li>• Capabilities and limitations of production tools and technologies</li> </ul> |                |
| <b>Abilities</b>                   |   | <ul style="list-style-type: none"> <li>• Research real-life motion and exaggerated motion techniques to generate ideas for animated sequences</li> <li>• Extract assets required for animation from asset pipelines</li> </ul>   | <ul style="list-style-type: none"> <li>• Analyse creative briefs, script and storyboards to understand the animation requirements for production</li> <li>• Provide feedback to 3D artists to refine models and rigs to meet animation requirements</li> </ul>   | <ul style="list-style-type: none"> <li>• Collaborate with 3D artists to align the expectations for modelling and rigging to meet the needs of animation</li> <li>• Ideate the animation techniques to be used for specific key scenes</li> </ul>  | <ul style="list-style-type: none"> <li>• Define the artistic direction for the animation in alignment with the overall creative vision</li> <li>• Establish creative guidelines and style guides to drive the development of all</li> </ul>  |                |

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|  |  | <ul style="list-style-type: none"> <li>• Extract motion capture data for use in animation sequences</li> <li>• Break down animation into key poses involved in the specific motions</li> <li>• Create keyframes to depict the key poses involved in the animated sequence</li> <li>• Use scripting or visual programming to develop animated sequences by generating frames in between the keyframes</li> <li>• Store files to enable the next stage of production to run efficiently</li> </ul> | <ul style="list-style-type: none"> <li>• Analyse the actions required for executing specific motion sequences to plan the execution of assigned animations</li> <li>• Plan the staging of shots by interpreting storyboards or animatic</li> <li>• Create complex and specialised animation sequences depicting special motions and collisions using physics-based animation techniques</li> <li>• Edit created animation sequences after review on 3D content</li> <li>• Review animation sequences developed by junior animators</li> <li>• Present animations for review to the creative leadership</li> <li>• Optimise animations based on rendering feedback to enhance the rendering efficiency and meet the needs of the production</li> </ul> | <ul style="list-style-type: none"> <li>• Communicate the vision of each scene to the animation team</li> <li>• Guide the staging and creation of complex animation sequences for depicting realistic character expressions</li> <li>• Review animations created by the animators to provide inputs for refinements based on the creative and artistic</li> <li>• Guide the refinement of animations to meet specific creative requirements</li> <li>• Identify the scope of optimisation required in the animation based on feedback from the rendering processes</li> <li>• Oversee the optimisation of animations to ensure the achievement of the creative vision and the technical efficiency</li> <li>• Present animated sequences to the creative leadership for review and refinement</li> </ul> | <p>animation and visual effects processes</p> <ul style="list-style-type: none"> <li>• Drive research to review proofs-of-concept for the selection of new technologies and approaches for animations</li> <li>• Determine the animation techniques to be used for the production</li> <li>• Drive the creation of tools to meet the production and pipeline requirements</li> <li>• Direct animated and virtual acting and performance to enhance the realism of content</li> <li>• Review animation sequences to achieve the creative vision ensure and alignment with the artistic direction and overall look and feel</li> <li>• Pitch animated sequences to the creative leadership or client for creative inputs and approval</li> </ul> |  |
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