**Specification of Competency Standards**
**for the Information & Communications Technology Industry**
**Unit of Competency**

Functional Area - Operations Management

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| Title | Create rig for 3D character animation |
| Code | 107959L3 |
| Description | This unit of competency applies to all Digital Media Technology (DMT) practitioners in the 3D animation production work. Before any kind of advanced animation can happen, a rig must be built. A rig consists of bones and joints (skeleton) inside a character model which allows the animator to move the character model smoothly and precisely. |
| Level | 3 |
| Credit | 3 |
| Competency | Performance Requirements<br>1. Knowledge for creating rig for 3D character animation<br>• Possess literacy skills that can read and interpret relevant sources of information related to the character animation<br>• Possess good communication skills to collaborate with modellers and animators<br>• Possess detail knowledge on operating character modelling software<br>• Possess good animation concepts and techniques<br>• Possess good rigging skills and good knowledge of different rigging techniques<br>• Possess basic knowledge of body anatomy movement<br><br>2. Create rig for 3D character animation<br>• Comprehend the script/storyboard/character sheet/animation brief to understand character animation requirements<br>• Prepare for rigging:<br>o Select suitable modelling software<br>o Acquire the character model<br>• Load the previously prepared character model into the animation software and perform some basic checking and adjustments prior performing rigging, for example:<br>o Is the model in neutral pose?<br>o Is the model in scale with others characters in the scene?<br>o Is the model centred over the axes<br>• Create all character model's joints/bones and connect them together to form the rig structure (skeleton), such as:<br>o Neck and head<br>o Spine (backbone)<br>o Arms and legs<br>o etc.<br>• Create Inverse Kinematics (IK) handles for the joints/bones to allow independent control during animation<br>• Set up controls of the rig by parenting objects to joints/bones and add controls to limit/constraint IK handles actions or movements in relations to parented objects, such as the arm movement is controlled by elbow and hand. A "top control" may be created to allow animator to control the whole rig movements<br>• Finalise the rig by testing, with the character model, to ensure it can provide the necessary movement controls required for the animation process<br><br>3. Exhibit professionalism<br>• Apply industry best practices for rigging to deliver the necessary controls that allow the animator to easily and correctly perform the animation task |

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| Assessment Criteria | The integrated outcome requirements of this UoC are the abilities to:<br>• Fully comprehend the animation requirements of the character model, such as what type of controls and the constraints of the movements, etc.<br>• Create sufficient joints/bones and controls for the rig that enable the animator to have all the controls it needed to perform his/her animation<br>• Complete and deliver the character model in the format comply with industry standard and matches the requirement for next stage of production work |
| Remark | |