

## 3D CHARACTER RIGGING

**UNIT CODE:** MD/CU/AN/CR/10/6/MA

### Relationship to Occupational Standards

This unit addresses the unit of competency: prepare 3D animation character

Duration of Unit: 100 hours

### Unit Description

This unit specifies the competencies required to prepare animation character. It involves selecting character rig, developing character rig, testing character rig, skinning 3D character with the rig and testing rigged 3D character.

### Summary of Learning Outcomes

Elements	Hours
Select character rig	18
Develop character rig	18
Test character rig	12
Skinning 3D character	20
Test rigged 3D character	32
<b>Total hours</b>	<b>100</b>

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Select character rig	1.1 Introduction to rigging 1.2 3D software user interface 1.3 3D character analysis 1.4 Types of character rig	<ul style="list-style-type: none"><li>• Observation</li><li>• Oral questions</li><li>• Third party report</li><li>• Interviewing</li><li>• Project and report writing</li></ul>
2. Develop character rig	2.1 Automated character rigs 2.2 Customized Character rigs 2.3 Bone set up	<ul style="list-style-type: none"><li>• Observation</li><li>• Oral questions</li></ul>

	2.4 Forward kinematics 2.5 Inverse kinematics 2.6 Character rig controllers 2.7 Character rig constraints	<ul style="list-style-type: none"> <li>• Third party report</li> <li>• Interviewing</li> <li>• Project and report writing</li> </ul>
3. Test character rig	3.1 Testing character rig controllers 3.2 Testing character rig constraints 3.3 Character full rig controls and integration	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questions</li> <li>• Third party report</li> <li>• Interviewing</li> <li>• Project and report writing</li> </ul>
4. Skinning 3D character	4.1 Character rig and character model integration(skinning) 4.2 weighing vertices absolute effect	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questions</li> <li>• Third party report</li> <li>• Interviewing</li> <li>• Project and report writing</li> </ul>
5. Test rigged 3D character	5.1 Testing Facial deformation 5.2 Testing Limbs deformation 5.3 Testing body torso deformation 5.4 Test character animation.	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questions</li> <li>• Third party report</li> <li>• Interviewing</li> <li>• Project and report writing</li> </ul>

### **Suggested Methods of Delivery**

- Project
- Demonstration by trainer
- Practice by the trainee
- Discussions
- Direct instruction
- Case study
- Audio –visual aids

### **Recommended Resources**

- Computers
- Internet
- Animation films
- Text books

- Computer software
- Flash drives