**3D CHARACTER MODELLING**

**UNIT CODE:** MD/CU/AN/CR/07/5/MA

**Relationship to Occupational Standards**

This unit addresses the unit of competency: model 3Dcharacters

Duration of Unit: 140 hours

**Unit Description**
This unit specifies the competencies required to model 3D characters. It involves analysing character bible, developing animation theme, preparing character T or A poses, unwrapping 3D characters and texturing 3D characters.

**Summary of Learning Outcomes**

| ELEMENTS | DURATION(HOURS) |
|---|---|
| Analyse character bible | 12 |
| Develop animation theme | 12 |
| Prepare character T and A poses | 18 |
| Model 3D characters | 40 |
| Unwrap 3D characters | 28 |
| Texture 3D characters | 30 |
| **Total hours** | **140** |

**Learning Outcomes, Content and Suggested Assessment Methods**

| Learning Outcome | Content | Suggested Assessment Methods |
|---|---|---|
| 1. Analyse character bible | 1.1 Introduction of character design<br>1.2 Character analysis<br>1.3 Character profile<br>1.4 Character theme and style | • Observation<br>• Oral questions<br>• Third party report<br>• Interviewing<br>• Project and report writing |
| 2. Develop animation theme | 2.1 3D modelling user interface software<br>2.2 Modelling techniques | • Observation<br>• Oral questions<br>• Third party report |

| | 2.3 Colour schemes<br>2.4 Character costume design<br>2.5 3D rig method | • Interviewing<br>• Project and report writing |
|---|---|---|
| 3. Prepare character T poses | 3.1 Character blue prints set-up<br>3.2 Character front view<br>3.3 Character side view.<br>3.4 Character back view.<br>3.5 Character top view. | • Observation<br>• Oral questions<br>• Third party report<br>• Interviewing<br>• Project and report writing |
| 4. Model 3D character | 4.1 Mesh model selection<br>4.2 Mesh- model formation<br>4.3 Quadrilaterals<br>4.4 Edge loops<br>4.5 Topology<br>4.6 Facial loops development<br>4.7 Body joint loops development<br>4.8 Appendages modelling<br>4.9 Character costumes<br>4.10 Mesh- model refining | • Observation<br>• Oral questions<br>• Third party report<br>• Interviewing<br>• Project and report writing |
| 5. Unwrap 3D characters | 5.1 UVW unwrap modifier<br>5.2 Defining the seam-lines<br>5.3 Planar mapping<br>5.4 Textured character UVW maps<br>5.5 Character texture details | • Observation<br>• Oral questions<br>• Third party report<br>• Interviewing<br>• Project and report writing |
| 6. Texture 3D character | 6.1 Skin maps<br>6.2 Bump maps<br>6.3 Hair and fur<br>6.4 Eye materials<br>6.5 Tongue materials and maps.<br>6.6 Teeth materials | • Observation<br>• Oral questions<br>• Third party report<br>• Interviewing<br>• Project and report writing |

**Suggested Methods of Delivery**
- Project
- Demonstration by trainer

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

**Recommended Resources**

- Computers
- Internet
- Digital Cameras
- Magazines
- Animation films
- Text books
- Computer software
- Drawing set
- Stereo studio headset
- Digital Drawing Tablet
- Flash drives