



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Animation File Rendering Techniques

Communication Studies and Language / Media Studies

Unit Standard 242541 · NQF Level 5 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the skills to render animation files efficiently using industry-standard software and techniques. Participants will understand rendering pipelines, output formats, and optimise settings for various media platforms, ensuring high-quality final products.

Category	Communication Studies and Language
Subfield	Media Studies
Unit Standard	242541
Accreditation	SAQA Accredited · NQF Level 5 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply appropriate rendering settings for different animation output requirements.
- Analyse rendering parameters to optimise file size and quality trade-offs.
- Evaluate rendered output against project specifications and quality standards.
- Implement batch rendering processes to manage multiple animation sequences.
- Demonstrate the ability to troubleshoot common rendering errors and artifacts.
- Design a rendering workflow that balances time, resources, and output quality.

WHO SHOULD ATTEND

- Animators, multimedia designers, and video production professionals who need to produce final rendered animation files for broadcast, web, or film.

COURSE OUTLINE

Day 1: Foundations of Animation Rendering

- Overview of rendering: definition, purpose, and workflow.
- Rendering engines: CPU vs GPU, ray tracing vs rasterisation.
- Key terminology: resolution, frame rate, sampling, anti-aliasing.
- Introduction to render settings: output format, resolution, and quality.
- Basic lighting and material setup for rendering.
- Understanding the render queue and batch processing.
- Common file formats for rendered output (PNG, EXR, TIFF).
- Overview of industry-standard software (Blender, Maya, 3ds Max).

Day 2: Lighting and Materials for Rendering

- Types of lights: point, spot, area, directional, and ambient.
- Three-point lighting setup and practical applications.
- Global illumination and indirect lighting.
- HDRI environment maps and their use.
- Material properties: diffuse, specular, roughness, metallic.
- Texture mapping: UV mapping, procedural textures, and image textures.
- Shader networks: creating complex materials.
- Optimising materials for render performance.

Day 3: Render Settings and Optimisation

- Sampling and anti-aliasing: sample count, noise threshold.
- Denoising techniques: AI denoisers and post-processing.
- Render layers and passes: diffuse, specular, shadow, etc.
- Multi-pass rendering and EXR file output.
- Optimising geometry: LODs, proxy objects, and instancing.
- Render region and bucket rendering.
- Troubleshooting: fireflies, artefacts, and memory issues.
- Render farms and distributed rendering overview.

Day 4: Advanced Rendering Techniques

- Depth of field: aperture, focal distance, and bokeh.
- Motion blur: shutter speed, samples, and deformation blur.
- Volumetric rendering: density, scattering, and absorption.
- Subsurface scattering: settings and material examples.
- Caustics: photon mapping and bidirectional methods.
- Displacement and tessellation for detailed surfaces.
- Animation rendering: keyframes, frame ranges, and output sequences.
- Batch rendering and command-line rendering.

Day 5: Compositing and Final Output

- Introduction to compositing software (Nuke, After Effects, Blender Compositor).
- Combining render passes: colour, lighting, and shadows.
- Colour grading: curves, colour balance, and LUTs.
- Post-processing effects: bloom, glare, and lens flares.
- Output formats: image sequences, video codecs, and compression.

- Rendering for different media: film, broadcast, web, VR.
- Production pipeline integration: asset management and version control.
- Final project: render a short animation from start to finish.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **8 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 24,200.00	R 24,200.00
1	In-House	R 31,400.00	R 31,400.00
1	On-Campus (Pretoria)	R 36,200.00	R 36,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	07 Aug 2026	On-Campus	Pretoria, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Dubai, UAE
03 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Mauritius
03 Aug 2026	07 Aug 2026	On-Campus	Johannesburg, South Africa
03 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	14 Aug 2026	On-Campus	Mauritius
10 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 242541) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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