

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI - 51

| 1 | Name of Course | Certificate Course in 3D Animation Production (101134) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|--|-------|-------|------------|------------|--|--------------------------|------------|-----------------|-------|--------|------------|------------|---|----------|------------------|----------|-------|-----|----|---|----------|-----------------|-------|-------|-----|----|---|----------|------------------|------|-------|-----|----|---|----------|-----------------|-------|-------|-----|----|--|--|-------|--|--|-----|-----|
| 2 | Max. Nos. of Student | 25 Students | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Duration | 6 Months | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Type | Part Time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Nos. of Days / Week | 6 Days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Nos. of Hours /Days | 4 Hrs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Space Required | Theory Class Room – 200 sqft Practical – 200 sqft Total - 400 sqft | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Entry Qualification | H.S.C. Passed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Objective Of Syllabus/ introduction | On completion of the course a student should have – a. Gain knowledge in 3D animation production process b. Apply this knowledge to understand the work instructions from related animation functions c. Acquire knowledge 3D Concepts & Principles of Animation. d. Understanding 3D Modules such as Modeling, Digital Texturing, e. Rigging, Animation & Lighting, Artistically and Digitally. f. Create 3D Characters and animate them. g. Create 3D Animated environments h. Produce animated short films as teams | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Employment Opportunity | Animator, Clean-up artist, Freelancer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Teacher’s Qualification | Degree / Diploma in Computer Science & Engg. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Training System | <table><tr><th colspan="4">Training System Per Week</th></tr><tr><td>Theory</td><td>Practical</td><td colspan="2">Total</td></tr><tr><td>6 Hours</td><td>18 Hours</td><td colspan="2">24 Hours</td></tr></table> | | | | | | Training System Per Week | | | | Theory | Practical | Total | | 6 Hours | 18 Hours | 24 Hours | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training System Per Week | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Theory | Practical | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 Hours | 18 Hours | 24 Hours | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Exam. System | <table><tr><th>Sr. No.</th><th>Paper Code</th><th>Name of Subject</th><th>TH/PR</th><th>Hours</th><th>Max. Marks</th><th>Min. Marks</th></tr><tr><td>1</td><td>10113411</td><td>Drawing Concepts</td><td>TH-I</td><td>3 hrs</td><td>100</td><td>35</td></tr><tr><td>2</td><td>10113412</td><td>Digital Imaging</td><td>TH-II</td><td>3 hrs</td><td>100</td><td>35</td></tr><tr><td>3</td><td>10113421</td><td>Drawing Concepts</td><td>PR-I</td><td>3 hrs</td><td>100</td><td>50</td></tr><tr><td>4</td><td>10113422</td><td>Digital Imaging</td><td>PR-II</td><td>3 hrs</td><td>100</td><td>50</td></tr><tr><td></td><td></td><td>Total</td><td></td><td></td><td>400</td><td>170</td></tr></table> | | | | | | Sr. No. | Paper Code | Name of Subject | TH/PR | Hours | Max. Marks | Min. Marks | 1 | 10113411 | Drawing Concepts | TH-I | 3 hrs | 100 | 35 | 2 | 10113412 | Digital Imaging | TH-II | 3 hrs | 100 | 35 | 3 | 10113421 | Drawing Concepts | PR-I | 3 hrs | 100 | 50 | 4 | 10113422 | Digital Imaging | PR-II | 3 hrs | 100 | 50 | | | Total | | | 400 | 170 |
| Sr. No. | Paper Code | Name of Subject | TH/PR | Hours | Max. Marks | Min. Marks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 10113411 | Drawing Concepts | TH-I | 3 hrs | 100 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 10113412 | Digital Imaging | TH-II | 3 hrs | 100 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 10113421 | Drawing Concepts | PR-I | 3 hrs | 100 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 10113422 | Digital Imaging | PR-II | 3 hrs | 100 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Total | | | 400 | 170 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Theory & Practical - I

Drawing Concepts

| Sr. No. | Contents | Learning Outcomes |
|---------|---|--|
| 1. | Drawing Basics | To be able to draw basic forms and shapes which are fundamentals for further drawing sessions |
| 2. | Design Fundamentals, Perspective Drawing, Shading & Shadows | Good understanding of design theory, Perspective drawing, shading techniques |
| 3. | Drawing Human Figures | Good understanding of design theory, Perspective drawing, shading techniques |
| 4. | Sketching for Animation (Stick Figures & | Understanding animation principles and drawing thumbnails of actions and poses. |
| | Photoshop | <p>Use of Photoshop – detailed introduction of various tools used in tool box (with their settings from options dialog box) i.e. selection tools and various selection techniques, drawing the shapes using brush tools, use of history brush. Rubber stamp tools, special effects tools blur, sharpen, smudge, dodge, sponge, burn tool etc. Applying various fill effects using the option in gradients tools, creating text, creating text, creating at the paths / selection using option in pen tool etc., use all these tool effect to appropriate drawings, create logos etc. general settings using preferences options. Creating the brushes. Layer – create layers, duplicate the layer. Arranging and linking the layer, hiding and deleting the layers, merging the layers, grouping the layer with previous layer. Applying special effects to layers such as shadow, bevel and emboss, inner or outer glow etc. various selection option in selection menu i.e. grow similar color range etc. Creating and modifying the border, using of feathering, saving the particular selection mask – use of mask, apply and remove the mask. Changes Image Modes – Adjust : colour settings, hue-saturation, brightness, replace colour, channel mixer etc. change image size, canvas size and rotation, L cutting / copying. The select objects, fill, stroke options, use of define pattern Saving the file in new formats i.e. converting the file to gif, tiff, bmp etc. Importing the graphics from scanner, options in scanner dialog box, applying various filter effects, retouching of images and photographs. Stamp tool, transforming the selected objects. Saving -</p> |

Theory & Practical - II

Digital Imaging

| Sr. No. | Contents | Learning Outcomes |
|---------|-----------------|--|
| 1. | Digital Imaging | Designing images and textures especially for Animation |
| 2. | Modeling | Create professional models for animation production |
| 3. | Texturing | Create textures for characters and Backgrounds |
| 4. | Rigging | Understanding human anatomy and create professional rigs |
| 5. | Animation | Strong understanding of Animation principles and creating professional animation sequences |
| 6. | Lighting | Lighting up the animated sequences for broadcast. |

List of tools / equipments / softwares :

| Sr.No. | Description of tools / equipments / softwares | Nos. required |
|--------|---|---------------|
| 1. | Pentium based processor having minimum configuration <ul style="list-style-type: none">• Min.400 MHZ• 160 GB HDD• 1 GB RAM• 1.44 MB floppy drives• 48 x CD-ROM Drive• SVGA colour monitors with VGA (8 mb)• Multimedia enabled & Windows XP, NVIDIA GeForce 7300 GT | Four |
| 2. | 136 column dot matrix printer | One |
| 3. | Desk/Ink Jet printer | One |
| 4. | Adobe Photoshop CS3, Autodesk Maya 8.5, Soundforge, Adobe Premier Softwares. | As required |

Reference Books :

| Sr. No. | Course content | Reference Books |
|----------------|--|--|
| 1. | Drawing Basics | Standard Art College Drawing Books |
| 2. | Drawing Human Figures | Standard Art College Drawing Books |
| 3. | Sketching for Animation (Stick Figures & Thumbnails) | Cartoon Animation by Preston Blaire |
| 4. | Digital Imaging | Adobe Photoshop CS3 For Photographers |
| 5. | Modelling | Mastering M A Y A 8.5 |
| 6. | Texturing | Mastering M A Y A 8.5 |
| 7. | Rigging | Mastering M A Y A 8.5 |
| 8. | Animation | Mastering M A Y A 8.5 Character Animation Animation Survival Kit |
| 9. | Lighting | Mastering M A Y A 8.5 |
