

SYLLABUS FOR B. VOC. IN ANIMATION AND GRAPHIC DESIGN (AGD)
PROGRAMME TEMPLATE: B. Voc. AGD COURSE (CBCS) UNDER

GAUHATI UNIVERSITY

Semester	CORE COURSE (12 papers, 72 credits)	Ability Enhancement Compulsory Course (AECC) (2 papers, 8 credits)	Skill Enhancement Course (SEC) (4 papers, 16 credits)	Discipline Specific Elective (DSE) (6 papers, 36 credits)
I	AGD-VC-1016	ENG-AE-1014		
	AGD -VC-1026			
	AGD -VC-1036			
II	AGD -VC-2016	ENV-AE-2014		
	AGD -VC-2026			
	AGD -VC-2036			
III	AGD -VC-3016		XXX-SE-3XX4	
	AGD -VC-3026			
	AGD -VC-3036			
IV	AGD -VC-4016		XXX-SE-4XX4	
	AGD -VC-4026			
	AGD -VC-4036			
V			XXX-SE-5XX4	AGD-VE-5016
				AGD -VE-5026
				AGD -VE-5036
VI			XXX-SE-6XX4	AGD -VE-6016
				AGD -VE-6026
				AGD -VE-6036

QP: CHARACTER DESIGNER- MES/ Q 0502

NSQF Level – 4

Semester 1

**Paper AGD-VC-1016 Elements of Graphic Design
(Adobe Illustrator and Photoshop)**

Total Credits: 6

Total Marks=100

Unit 1: Introduction to Graphic Design

Marks 20

- Introduction to vector graphics (MES/ N 0501)
- Difference between vector and raster graphics
- Work space orientation-setting documents (MES/ N 0513)
- Symbols-patterns
- Blends, clipping paths and masks
- Art work by Trace tools and live paint
- Concepts of adobe illustrator, Interface, Navigation and Work spaces (MES/ N 0502)
- "About libraries, Rulers and guides, Art boards, Smart guides

Unit 2: Software (Adobe Illustrator & Photoshop)

Marks 20

- Understanding to design college magazine cover
- Understanding to design a brochure
- Understanding to make any Advertisements for print media
- How to designing pamphlets for any company
- Design information brochures on any company
- Understanding to make nature scene (winter) digital painting
- Understanding to make Nature scene (summer) digital painting
- How to create digital painting (Use brush, pencil, smudge etc.)
- Make something like modern art keeping in mind color combination
- Make a collage of Indian art and culture

Unit 3: System Safety & Security

Marks 20

- System Safety & Security (MES/ N 0514)

- Health and Safety (MES/ N 0514)

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

Adobe Illustrator CS5 Bible by Steve Johnson.

Adobe Illustrator CS5 Bible by Ted Alspach.

QP: CHARACTER DESIGNER- MES/ Q 0502

NSQF Level - 4

Semester 1

Paper: TSC-VC-1026 – INTRODUCTION TO DRAWING AESTHETICS

Total Marks: 100

Credits: 6

Unit 1 : MES / N 0501 (Understanding the script) Marks: 20

- History of Art, renaissance, major Art movements
- History of Narrative
- Mythology and character arc
- Genre and character styles
- Character modeling according to script
- Mood expression and Gravity of Characters

Unit 2: MES / N 0502 (Ensuring consistency across all scenes)

Marks: 20

- Visual Continuity
- Character psychology and its external manifestation
- Storyboards in maintaining visual continuity
- Props and Gadgets
- **Colour theory in continuity**

Unit: MES / N 0503 (Design Characters)

Marks: 20

- Introduction various approach to drawing aesthetics, tools and medium
- Free hand drawing

- Proportions and anatomy study
- Characters in perspective
- Line of action
- Expressiveness of strokes
- Characters in motion
- Figure drawing
- Principles of Animation and its application in character design
- Value scale: tint, shade, lightness, saturation

Internal assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

QP: CHARACTER DESIGNER- MES/ Q 0502

NSQF Level – 4

Paper- AGD -VC-1036 Character Design for Animation

Semester 1

Total Credits: 6

Total Marks=100

Unit 1: Introduction to Character Design

Marks 20

- Understanding to create a Character (MES/ N 0501)
- Difference between Male, Female & Kid Figure (MES/ N 0503)
- 7.5 Heads Measure for Character design (MES/ N 0502)
- Appeal on Character (MES/ N 0502)

Unit 2: Introduction to Software for Character Design

Marks 20

- Understanding to Layers, panels and Tools (MES/ N 0503)
- How to create different types of expressions
- Art board and proportion maintenance (MES/ N 0513)
- Digitally create appeal on Character (MES/ N 0501)

Unit 3: Principles of Animation

Marks 20

- Squash and Stretch, Anticipation, Staging, Straight ahead and pose to pose, Follow through and overlapping action, slow in and slow out, Arcs, Secondary action, Timing, Exaggeration, Solid drawing, Appeal, Mass and weight, Character acting, Volume. (MES/ N 0501)
- Background & Props Design & Animation (MES/ N 0502)

**Practical: Home assignment/Viva
Internal Assessment**

Marks 20

Marks 20

QP: CAMERA OPERATOR- MES/ Q 0902

NSQF Level - 5

Semester 2

Paper: AGD-VC-2016 – Introduction to Digital Photography

Total Marks: 100

Credits: 6

UNIT: 1 MES / N 0905 (Set up Camera Equipment prior to Shoot) Marks: 10

- Camera set up – axis, angle and movement
- Camera angle and its relationship to pictorial meaning
- Different types of tripod and its handling
- Trolley, track and camera movement
- Horizontal level, camera rotation

UNIT: 2 MES / N 0906 (Prepare for Shoot) Marks: 35

- Understanding focus- auto and manual mode
- Layout marks and camera position
- The principles of cinematography
- Understanding of optical theory
- Principles of composition and continuity
- White balance
- Aspect ratio, resolution and frame rate
- Camera continuity

UNIT 3 MES / N 0907 (Operate Camera during Shoot) Marks: 15

- Focusing and refocusing the camera lenses for each shot
- Execution of camera movements as requested by the director
- Instruct actors and crews regarding movements and positions

Internal assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

Paper AGD -VC-2026: Sound and Video Editing

Semester2

Total Credits: 6

Total Marks=100

Unit 1: Introduction to Sound Editing

Marks 20

- Analog and digital audio
- Basic Preferences
- Audio Hardware Preferences
- Media and Metadata Preferences
- The CTI and Spectral Frequency Display
- Working in the Waveform View
- Level Meters

Unit 2: Introduction to Video Editing

Marks 20

- What is premiere pro, why and what for?
- Concept of nonlinear editing.
- Digital video principles:

Video formats, frame rates, aspect ratios, progressive vs. interlaced, video outputs, compressions.

- Introductory project:

Workflow

Adding footage

Time code

Basic Interface of premiere pro

All panels of premiere (tools, project, monitor, source,

Timeline, audio meters, misc)

Unit 3: Compilation of Sound & Video

Marks 20

- The art of video editing:
Job, When, Avoiding, Pacing, Establishing, Emotional
Fixing, Matching.
- Helpful editing techniques:
Markers, replacing footage, exporting still, alternate, rearranging clips, targeting,
disconnecting and offline.
- Adjusting clip properties:
Rubber band, Position, Anchor, Size.
- Playing with time:
Speed, Rate, Backwards.
- Attributes of video:
- Pixels, Frame rates, HD.

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

T Film Editing: Great Cuts Every Filmmaker and Movie Lover Must. Know Author: Gael Chandler
(Michael Wiese Productions).

Paper AGD -VC-2036: 2D Animation

Semester2

Total Credits: 6

Total Marks=100

Unit 1: Introduction to 2D

Marks 20

- The Basics of traditional 2D animation
- Intro to the skill, required thereof
- Beginning life drawing
- Use of simple shapes
- How to draw drawings with the help of basic shapes
- Learning to draw lines, circles, ovals, scribbles, jig jag (random) patterns etc.

Unit 2: Introduction to 2D Animation

Marks 20

- Walk cycles of Biped (human)
- Walk cycles of Quadruped (animal)
- Background and Props animation

Unit 3: Compilation of Character & Background

Marks 20

- How to Lip sync
- How to merge animation
- How to compose Character and background

Practical: Home assignment/Viva Internal Assessment

Marks 20
Marks 20

Reader list:

Timing for Animation by Tom Sito.

How to Draw Comics the Marvel way by Stan Lee.

Art of drawing Human Body (Sterling).

Paper: AGD-VC-3016 Introduction to sound design

Total Marks: 100

Credits: 6

UNIT: 1 Introduction to Sound Design

Marks: 10

- The nature of sound waves
- Properties of sound waves
- Monophonic and stereophonic sound
- Directionality of Sound

UNIT: 2 Sound recording

Marks: 30

- Various recording tools
- Technical recording sessions with Condenser, cardioid and dynamic microphone
- Sound layering and decibel levels
- Digital Audio Workstations
- Sound rerecording with the help of guide track
- Recording with portable audio recorder

UNIT: 3 Audio Post Production

Marks: 20

- Sound editing – creating invisible engagements with sound
- Audio track mixer automation
- Mono to stereo conversion
- Sound panning
- Sound effects
- Foley sound
- Tracklaying and routing
- Audio mix with dialogue, ambience and music track

Internal assignment (INT)

Mark 20

Home assignment (PR)

Mark 20

Paper AGD -VC-3026:
Introduction to 3D Modeling & Texturing
Semester3
(Autodesk Maya)
Total Credits: 6
Total Marks=100

Unit 1: Introduction to 3D

Marks 10

- Understanding to 3D (3 Dimensional)
- About various 3D software's
- Understanding to 3D Modeling and Texturing

Unit 2: Maya Fundamentals

Marks 20

- Introduction to the interface of Maya
- Creating a Project in Maya-about Project Settings
- Saving Files and File Types: about .ma and .mb file types
- Viewing Geometry (Navigation), reviewing the Viewport menus
- Quick layout buttons, Change and resize panels, Change the display of objects

Unit 3: Introduction to 3D Modeling & Texturing

Marks 30

- What is 3D Modeling?
- Types Of Modeling: Nurbs, polygon, subdivision.
- Techniques of Modeling:
 - Poly count (low poly, high poly, polygon count),
 - Surface hardness (object/prop, organic/characters)
- Image plane for Modeling:
 - Create, edit, or position an image plane.
- Automatic UV mapping, Planar UV mapping, Cylindrical UV mapping, Spherical UV mapping, User-defined UV mapping
- Camera UV mapping, Transfer UVs between meshes, Confirm UV placement.
- About Lambert, Blinn and Phong

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

Advanced Maya Texturing and Lighting By Lee Lanier

(John Wiley and Sons)

Paper AGD-VC-3036: Introduction to Digital Compositing

Semester3

(Adobe After Effects)

Total Credits: 6

Total Marks=100

Unit 1: Introduction to Compositing

Marks 10

- What is compositing?
- Types of compositing
- Various software's of compositing

Unit 2: About After Effects

Marks 20

- Introduction to after effects
- Interface
- About work spaces
- About project panel
- About time panel
- About compositing panel
- About compositing settings

Unit 3: Introduction to Motion Graphic & Import files

Marks 30

- How to import illustrator and Photoshop files.
- About animation in after effects.
- Keying various properties like opacity, position, rotation, scale, anchor point.
- Copying and pasting key frames.
- What is pre-compose or nesting.
- About blending layers and compositing.
- Working with video.

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

Creating motion graphics with after effects by Trish and Chris Meyer (Focal press),

Adobe after Effects CS5 Classroom in a Book (Author: Adobe Creative Team) Adobe Press.

Semester 4

Paper: AGD-VC-4016 – Creative Writing

Total Marks: 100

Credits: 6

UNIT: 1 Story, Ideas, Creative Brief Marks: 15

- Structure of a story
- The creative writing process
- Narrative and non-narrative writing
- Fiction and Non fiction
- Short story and poetry

UNIT: 2 Script writing Marks: 35

- Story development from idea and logline
- The craft of storytelling- mythologies, fables, folktales
- The structure of a script - the three act structure
- Scene heading, action and narrative flow
- Art of dialogue writing and tonality
- Conflict, backstory and plot points
- Linear Vs Non linear scripts
- Studying of screenplaywriting technique from classic movies
- Individual exercise of short film scriptwriting

UNIT: 3 Refining the script Marks: 10

- Rewriting as a means of creating twists, subplots for engagements
 - Script mentorship
 - Mellowing or intensifying the conflicts according to the theme
 - Inclusion of subliminal aspects in subsequent drafts
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- Audio mix with dialogue, ambience and music track

Internal assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

Semester 4

Paper: AGD-VC-4026 – Sound
Synchronization and Expression

Total Marks: 100

Credits: 6

Unit: 1 Facial expression and phonetics for animation Marks: 10

- Facial expression in animated characters
- Animating dialogues
- Eight basic mouth positions (Phoneme)
- Phonetic mouth shapes for animation
- Basics of lip sync

Unit: 2 Preparing Character for Lip Synchronization Marks: 25

- Facial expression that helps in dialogue delivery
- Cut out animation for convenient facial expression
- Layering a character in design stage to facilitate lip movement
- Introduction to various tools and techniques in Moho Pro
- Character animation in Moho Pro

Unit: 3 Sound Synchronization

- Breakdown of a dialogue sound to prepare for lip sync
- Sound synchronization in sound editing and post production softwares
- Understanding X-sheet for compilation of dialogue tracks
- 2D Animation and dialogue sync in Moho Pro
- Papagayo as a lip sync tool to line up phoneme

Internal Assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

QP: VFX EDITOR MES Q/ 3501
Paper AGD-VC-4036: Advanced Digital Compositing
Semester4
(Adobe After Effects)
Total Credits: 6
Total Marks=100

Unit 1: MES /N 3501: Compositing and Effect

Marks 20

- Working with video
- Creating common motion graphic elements
- Color correction
- Power of effects in after effects
- Mastering masking and shape layers

Unit 2: MES /N 3502: About After Effects Animation and Puppet pin

Marks 20

- Creating text and animating
- Becoming more efficient by using markers, aligning things
- About painting in aftereffects
- Advanced animation (puppet animation, using graph editor)
- Working with Photoshop files
- Project: animating elements from a photo
- Playing with time

Unit 3: MES /N 3503: Introduction to 3D and Tracking & Stabilizing

Marks 20

- About 3d compositing in aftereffects
- About keying-working with green or blue screen
- Stabilizing and tracking motion
- Introducing mocha
- About expressions
- Working with audio

- Mastering output
- Optimizing and tweaking aftereffects
- Integration with other software's

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

After Effects Apprentice, Second Edition [Paperback] Author: Chris and Trish Meyer (focal press.)

The After Effects Illusionist: All the Effects in One Complete Guide by Chad Perkins (Focal press.)

QP: Live Action Director MES Q/ 1301

NSQF Level - 7

Semester 5

Paper: AGD-VE-5016 –

Introduction to Digital Filmmaking

Total Marks: 100

Credits: 6

Unit 1: NOS MES/ N 1301 Evaluate production concepts and ideas Marks: 15

- Sourcing of ideas for production
- Evaluating selected ideas
- Potential resources that can be employed in filmmaking
- Budget, time, logistics, skill sets etc. constraints and proper analysis

Unit 2: NOS MES/ N 1303 Conceptualize the creative vision Marks: 35

- Introduction to the various stages of digital filmmaking
- Preproduction, scriptwriting, budget, location and casting
- Management of creative domains such as screenplay, storyboard, shot division
- Adaptation in the script to match budgetary and human resource constraints
- Collaboration with various departments to give shape the final output
- Controlling the production process

Unit 3: NOS MES/ N 1304 Communicating the Requirement to the team Marks: 10

- Communicating the main aspects of production to the team
- Communication of project outcomes, creative vision, functional roles, responsibilities, requirements, timelines to the heads of departments ahead in time
- Articulating the roles and responsibilities of each team
- Coordination of location and post production pipeline

Internal Assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

Paper AGD-VE-5026: 3D Character Animation

Semester5

(Autodesk Maya)

Total Credits: 6

Total Marks=100

Unit 1: Introduction to 3D Animation

Marks 20

- Timeline and layers
- Channel Box, Attributes Editor
- Keys in Maya
- Graphs in Maya

Unit 2: Character Animation

Marks 20

- Producing natural articulation of realistic & semi-realistic, imaginary characters
- Body language, attitude, character interaction, Animal walk& run cycles
- Biped Character walk cycles
- Biped Character run cycles

Unit 3: Facial Expression

Marks 20

- Facial animation and lip-sync.
- Nonlinear Animation with trax editor.
- Working with character sets and clips.
- QUADRUPED Character Animation.

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

Mastering Autodesk Maya 2011 by Eric Keller.

Character animation in depth (Creative professionals press) Author: Doug Kelly.

The Human Figure in Motion by Eadweard Muybridge.

Paper AGD-VE-5036: Advanced 3D Modeling

Semester5

(Autodesk Maya)

Total Credits: 6

Total Marks=100

Unit 1: Primitives in Maya Marks 20

- NURBS and Polygon
- Polygons (edge, vertex, face, vertex face, UVs),
- Combining, separating, and splitting,
- Polygon selection (object mode, sub-object mode: edge, vertex, face, vertex face, UV, edge loop, edge ring, border edge)

Unit 2: Software's: Autodesk Maya Marks 20

- Move, rotate, or scale polygon components
- Modifying polygon meshes(chamfer, split poly, insert edge loop tool, merge vertex, detach component
- Extrude, bridge, append to poly, combine ,separate, triangulate, create polygon tool, sculpt geometry, smooth, mirror geometry
- Converting poly and subdivision

Unit 3: NURBS Modeling Marks 20

- What are Nurbs?
- Components of Nurbs curves, degree of Nurbs curves and surfaces,
Moving edit points vs. Moving cvs, Bezier curves, reshape a curve or surface manually,
align a curve with a curve or surface

Align surface edges ,smooth a curve ,lock or unlock the length of a curve ,straighten, smooth, curl or bend a curve

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Reader list:

Animators Survival Kit by RICHARD WILLIAMS (Faber & Faber).

QP: Live Action Director MES Q/ 1301

NSQF Level - 7

Semester 6

Paper: AGD-VE-6016 –

Motion Picture Direction

Total Marks: 100

Credits: 6

Unit 1: NOS MES/ N 1305 Direct the Production Process Marks: 25

- History of cinema, Narrative filmmaking, evolution of filmmaking over time
- The principles of cinematography and filmmaking
- Documentary films and their history
- Theories of filmmaking
- Controlling creative aspects in a fictional film
- Making a production schedule
- Guiding performance of actors
- Overseeing technical areas such as camera, sound, lighting and production design

and creative areas such as costume and set design

- Direction of shots that meets the aesthetical and technical requirements
- Directing for the screen : Montage theory, Mis-en-scene, Auteur theory
- Principles of Visual communication, composition and continuity in filmmaking

**Unit 2: NOS MES/ N 1307 Direct the Post Production Process
Marks: 25**

Preparation towards the final version of the film

- Coordinating the roles and responsibilities of the members of the post production team
- Editing as a means of time compression and stretch
- Editing as a device for alternative scriptwriting
- development Colour pallete according to the mood of the story and its application in colour grading
- Integration of Visual Effects from other digital platforms in the final version of the film
- Management of workflow for sound post production, animation etc for final integration

Unit 3: NOS MES/ N 1308 Manage the Productions marketing and release Marks: 10

- Preparation towards participating in promotional initiatives
- Identification of marketing and communication channels used during promotion
- Preparation of material for press interviews and written interviews
- Design and replication of marketing, public relation and promotional activities
- Release of trailers, posters, production stills in online and social media

platforms to raise publicity

Internal Assignment (INT)

Marks: 20

Home assignment (PR)

Marks: 20

Paper AGD-VE-6026: Degree Showcase Project Group
Semester6

Total Credits: 6
Total Marks=100

Unit 1: Software Skill

Marks 60

- Students to do individual project from any of the modules (Preproduction or 2danimation or 3D modeling/texturing/animation or visual effects or post production etc).

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20

Paper AGD-VE-6036: Individual Projects (Demo reel)

Semester6

Total Credits: 6

Total Marks=100

Unit 1: Project &Portfolio development

Marks 60

- Students to design a project and work in a group with every individual contributing to various aspects of the project.
- Student to develop a portfolio for future placement and career

Practical: Home assignment/Viva

Marks 20

Internal Assessment

Marks 20