

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.



CIRCULAR NO.SU/ Faculty of Interdisciplinary Studies./B.VOC./ 37 /2022.

It is hereby informed to all concerned that, on the recommendation of Ad-hoc Board in Vocational Studies and Dean, Faculty of Interdisciplinary Studies the Hon'ble Vice-Chancellor has **accepted the curriculum of following B.Voc. Courses under Choice Based Credit and Grading System** in his emergency powers under Section-12 [7] of the Maharashtra Public Universities Act, 2016 on behalf of the Academic Council as appended herewith:

Sr.No.	Course Name	Semester
1.	B.Voc in Media & Entertainment	III to VI

This is effective from the **Academic Year 2020-21 and 2021-22** and onwards. This curriculum is also available on the University website www.bamu.ac.in.

All concerned are requested to note the contents of the circular and bring notice to the students, teachers and staff for their information and necessary action.

University campus,
Aurangabad-431 004.

Ref. No.SU/B.voc./Curri./2021-22/14068-78

Date: 31.10.2022

}}
}}
}}
}}

**Deputy Registrar,
Academic [Syllabus]
Section.**

Copy forwarded with compliments to :-

- 1] **The Principal All Affiliated Concerned Colleges, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.**
- 2] **The Director, University Network & Information Centre, UNIC, with a request to upload the curriculum along with this Circular on University Website.**

Copy to :-

- 1] The Director, Board of Examinations & Evaluation, Dr.BAMU, A'bad
- 2] **The Concerned Section, Examination Branch,**
- 3] The Section Officer, [Eligibility Unit],
- 4] **The Programmer [Computer Unit-1] Examinations, section, Dr. BAMU, A'bad**
- 5] **The Programmer [Computer Unit-2] Examinations, section, Dr. BAMU, A'bad**
- 6] The In-charge, [E- Suvidha Kendra],
- 7] The B.Voc Section, Dr. BAMU, A'bad
- 8] The Public Relation Officer,
- 9] The Record Keeper,

MARATHWADA UNIVERSITY AURANGABAD



SYLLABUS OF BACHELOR OF VOCATIONAL IN

B.Voc in Media & Entertainment Sem-III & IV

Choice Based Credit System

Effective form the Academic Year

2020- 21 Onwards



कृष्णाई शिक्षण प्रसारक मंडळ, लातूर संचलित,

जनविकास महाविद्यालय, बनसरोळा

ता. केज, जि. बीड - ४३१५१८ (महाराष्ट्र)
दूरध्वनी (०२४४५) २३७२४९, फॅक्स : ०२४४५ - २३७२४९
संलग्न : डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद
Email : principaljanvikas@rediffmail.com

सौ. आर.ए. तट
अध्यक्ष

डॉ.बी.एम. गोरे
सचिव

डॉ. बाबासाहेब गोरे
प्राचार्य

जमाक्र. : जमब/अभ्यासक्रम/२०२२-२३/८८५

दि. ०५/०९/२०२२
०७/१०/२०२२

प्रति,

मा. उपकुलसचिव,
शैक्षणिक विभाग (बी.व्होक.),
डॉ.बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ,
औरंगाबाद.



विषय:- बी.व्होक. द्वितीय वर्ष (तिसरे व चौथे सत्र) पदवी कोर्सचा अभ्यासक्रम प्रमाणित करुन मिळणे बाबत.

संदर्भ:- १) UGC आदेश क्र. F.No.4-1/2020(NSQF) September, 2020.

२) शैक्ष/संलग्न/वायपीएस/२०२०-२१/३१४७२-८० दि.२४.०५.२०२१.

महोदय,

वरील संदर्भित पत्रान्वये आमच्या महाविद्यालयात संदर्भ क्र. १ नुसार विद्यापीठ अनुदान आयोगाने बी.व्होक. च्या (1) Media & Entertainment (2) Medical Laboratory Technology (3) E-Commerce & Digital Marketing (4) Software Development या चार कोर्सला मान्यता दिली. त्यानुसार शैक्षणिक वर्ष २०२०-२१ मध्ये सदरील पदवी कोर्सच्या प्रथम वर्ष अभ्यासक्रमास मान्यता मिळाली असून शै.वर्ष २०२१-२२ करीता द्वितीय वर्ष (तिसरे व चौथे सत्र) पध्दतीचा अभ्यासक्रम विद्यापीठाच्या विहीत फॉर्मेट मध्ये तयार करुन मान्यतेसाठी सादर करत आहोत.

तरी सदरील द्वितीय व तृतीय वर्षाचा अभ्यासक्रम प्रमाणित करुन पुढील कार्यवाही व्हावी ही नम्र विनंती.

सोबत :

- १) अभ्यासक्रम आराखडा द्वितीय व तृतीय वर्ष (४ कोर्स)
- २) अभ्यासक्रम आराखडा सॉफ्ट कॉपी (सी.डी.)

आपला विश्वासू

प्राचार्य

जनविकास महाविद्यालय
बनसरोळा, ता. केज, जि. बीड

२०/१०/२०२२

2021-22



Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

Uniform Curriculum Structure

Bachelor of Vocation

(B.Voc. S.Y.: Media & Entertainment)

(University Department and all Affiliation College)

***Choice Based Credit System
B.Voc. S.Y. (III & IV Sem.)***

Ms. P. S. N.
19/10/22

g'am
19/10/2022

Dr. S. S. N.
Dean
Faculty of Interdisciplinary Studies
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad

TITLE OF THE PROGRAMME

B. Voc. (Media & Entertainment)

1. Preamble:

Skills and knowledge are the driving forces of economic growth and social development for any country. Presently, the country faces a demand – supply mismatch, as the economy needs more skilled workforce than that is available. In the higher education sphere, knowledge and skills are required for diverse forms of employment in the sectors of education, health care, manufacturing and other services.

Government of India, taking note of the requirement for skill development among students, launched National Vocational Education Qualification Framework (NVEQF) which was later on assimilated into National Skills Qualifications Framework (NSQF). Various Sector Skill Councils (SSCs) are developing Qualification Packs (QPs), National Occupational Standards (NOSs) and assessment mechanisms in their respective domains, in alignment with the needs of the industry.

In view of this our University initiated to start skill based courses which are in demand of industries to be carry responsibilities of society. The programme is highly relevant for all those who want to pursue a professional career in Medical Laboratory Technology.

2. Eligibility: 10+2 Pass

3. Program outcome:

- • First Exit Point (Diploma) and Outcome of First Year
- • Second Exit Point (Advance Diploma) and Outcome of Second Year
- • Third Exit Point (B. Voc. Degree) and Outcome of Third Year

Students will be awarded:

Certificate	Student shall be required to appear in examinations of all courses. However, to award the Certificate (Media & Entertainment) a student shall study the minimum of 30 credits course and opt minimum passing credits as per university rule.
Diploma	Student shall be required to appear in examinations of all courses. However, to award the Diploma (Media & Entertainment) a student shall study the minimum of 60 credits course and opt minimum passing credits as per university rule.
Advanced Diploma	Student shall be required to appear in examinations of all courses. However, to award the Advanced Diploma (Media & Entertainment) a student shall be required to study minimum of 120 credits course and opt minimum passing credits as per university rule.
B.Voc Degree	Student shall be required to appear in examinations of all courses. However, to award the degree a student shall be required to study minimum of 180 credits course and opt minimum passing credits as per university rule..

4. Assessment:

The Skill component of the course will be generally assessed by the respective Sector Skill Councils. In case, there is no Sector Skill Council for a specific trade, the assessment may be done by an allied Sector Council or the Industry partner. Further if Sector Skill Council in concerned / relevant trade has no approved QP which can be mapped progressively or due to any other reason, if the SSC expresses its inability to conduct the assessment or cannot conduct the skill assessment in stipulated time frames as per academic calendar, the institutions may conduct skill assessment through a Skill Assessment Board by „Certified Assessors“ as per the provisions enumerated in MHRD Skill Assessment Matrix for Vocational Advancement of Youth (SAMVAY). The Skill

Assessment Board may have Vice-Chancellor/Principal/Director/Nodal officer/Coordinator of the programme / Centre, representatives of the partner industry (s),

one nominee of the Controller of Examination or his/her Nominee of affiliating University / Autonomous College and at least one external expert. The affiliating university may nominate additional experts on the Skill Assessment Board, if required.

The certifying bodies may comply with / obtain accreditation from the National Accreditation Board for Certification Bodies (NABCB) set up under Quality Council of India (QCI). Wherever the university/college may deem fit, it may issue a joint certificate for the course(s) with the respective Sector Skill Council(s).

The general education component will be assessed by the concerned university as per the prevailing standards and procedures. General Education credit refers to a unit by which the course work is measured. It determines the number of hours of instructions required per week.

One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Accordingly, one Credit would mean equivalent of 14-15 periods of 60 minutes each or 28 – 30 hrs of workshops/ labs. For internship / field work, the credit weightage for equivalent hours shall be 50% of that for lectures /tutorials. For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study shall be 50% of that for lectures / tutorials.

The institutions offering B.Voc degree programme should adopt and integrate the guidelines and recommendations of the respective Sector Skill Councils (SSCs) for the assessment and evaluation of the vocational component, wherever available.

Letter Grades and Grade Points: it is recommended to adopt 10- point grading system with the Letter grades as given below:

Grades and Grade Points

Letter Grade

O (Outstanding) A+ (Excellent) A (Very Good) B+ (Good) B (Above Average) C (Average) P (Pass)
F(Fail)

Grade Point 10 9 8 7 6 5 4 0 0

A student obtaining Grade F and Ab shall be considered failed and he/she will be required to reappear in the examination. Computation of Semester Grade Point Average System (SGPA) and Cumulative Grade Point Average (CGPA):

Ab

(Absent)

Passing percentage for each paper each course is 40%. Separate passing for continuous assessment and end semester examination and/or as per time to time guidelines of the university.

The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the course components taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester, i.e

$$\text{SGPA (Si)} = \Sigma(\text{Ci} \times \text{Gi}) / \Sigma \text{Ci}$$

where 'Ci' is the number of credits of the ith course component and 'Gi' is the grade point scored by the student in the ith course component.

The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \Sigma(\text{Ci} \times \text{Si}) / \Sigma \text{Ci}$$

Where 'Si' is the SGPA of the ith semester and Ci is the total number of credits in that semester. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

The skill component would be taken as one of the course components in calculation of SGPA and CGPA with given credit weightage at respective level.

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

Media & Entertainment

Syllabus with effective from 2021-2022

Semester III

Sr. No.	Subject Code	Title of the Subject	Contact Hours Per Week		Evaluation Scheme (Marks)		Credit
			L	P	CIA	SEE	
	General Education						
1	ME 301	Fundamental of Art	4	0	20	80	4
2	ME 302	Graphic Design	4	0	20	80	4
3	ME 303	2D Digital Animation	4	0	20	80	4
	Skill Courses						
4	ME 304	Web Design Fundamental	4	0	20	80	4
5	ME 305	3D Modeling and Visualization	4	0	20	80	4
6	ME 306	Set Designing	4	0	20	80	4
	Practical Skill Courses						
7	ME 307	LAB1: Graphic Design	0	4	25	25	2
8	ME 308	LAB2: 2D Digital Animation	0	4	25	25	2
9	ME 309	LAB3: 3D Modeling	0	4	25	25	2
	Total				195	555	30

ms. joshi

ms. joshi

ms. joshi
20/10/2022
Dean
Faculty of Interdisciplinary Studies
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad

Semester IV

Sr. No.	SubjectCode	Title of the Subject	Contact Hours Per Week		Evaluation Scheme (Marks)		Credit
			L	P	CIA	SEE	
	General Education						
1	ME401	Web Design	4	0	20	80	4
2	ME402	Character Design	4	0	20	80	4
3	ME403	Advanced Lighting Texturing	4	0	20	80	4
	Skill Courses						
4	ME404	Character Rigging	4	0	20	80	4
5	ME405	Advanced Animation	4	0	20	80	4
6	ME406	Managing a Hosted Website	4	0	20	80	4
	Practical Skill Courses						
7	ME407	LAB4: Web Design	0	4	25	25	2
8	ME408	LAB5: Character Design	0	4	25	25	2
9	ME409	LAB6: Advanced Animation	0	4	25	25	2
	Total				195	555	30

Ms. Jishi
19/10/2022

20/10/2022
19/10/2022

De
20/10/2022
Dean
Faculty of Interdisciplinary Studies
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad

Semester-III:General Education

Course Code	CourseTitle	Credits 04
ME301	Fundamental of Art	Marks : 100
Objective	• Exploring different approaches in computer animation. • To enable students to manage Animation Projects from its Conceptual Stage to the final product creation. • To train students in applying laws of human motion and psychology in 2-D or 3-D characters. • To develop expertise in life-drawing and related techniques.	
Outcomes	Students will demonstrate technical ability and craftsmanship in their artworks. Students will demonstrate understanding of the elements of art and principals of design through effective compositions. Students' artworks will communicate concepts effectively. Students' artworks will show originality	
UnitI	(15 Hours) Introduction of Drawing - Fundamentals of Art, Basic Techniques about figure drawing, Cartooning, Composition of a Scene or Background and Designs. Basic Drawing Practice - Basic Shape, Basic drawing technique, Free Hand Practice	
UnitII	(15 Hours) Understanding Lights, Shading and Shadow - Study of light and shade in pencil of still life object, drawing still life objects in outline by pen and pencil, Study of still life objects in pen and ink to trace the light and shade	
UnitIII	(15 Hours) Introduction of Perspective - One Point Perspective, Two Point Perspective, Learning three point perspectives, Background designs with perspective - Drawing outdoor scenes showing one point perspective, drawing outdoor scenes showing two point perspectives, drawing outdoor scenes showing three point perspectives	
UnitIV	(15 Hours) Character Anatomy - Drawing the male figure with proper proportion , Drawing the female figure with proper proportion, Drawing the male face with proper proportion, Drawing the child face with proper proportion	
Suggested Readings	1. Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India 2. Web Technologies, Black Book, Dreamtech Press 3. HTML 5, Black Book, Dreamtech Press 4. Web Design, Joel Sklar, Cengage Learning 5. Internet and World Wide Web How to program, P. J. Deitel& H. M. Deitel, Pearson	


 20/10/2022
 Dean
 Faculty of Interdisciplinary Studies
 Dr. Babasaheb Ambedkar Marathwada
 University, Aurangabad

Course Code	Course Title	Credits 04
ME 302	Graphic Design	Marks : 100
Objective	- The designer should have the skill to use and combine several things to come up with - A final product that showcases the right result. - A good graphic design can be created by a designer with real talent and a clear goal of the message that should be expressed to the target audience.	
Outcomes	Graphic Design Learning Outcomes Analyze, synthesize, and utilize design processes and strategy from concept to delivery to creatively solve communication problems. Create communication solutions that address audiences and contexts, by recognizing the human factors that determine design decisions.	
Unit I	(15 Hours) Graphic Design Process: Create idea for Graphic Design Project, Photos for Graphic Design Project, Decide Title and Copy Matter for Graphic Design, Draw Composition and Layout Sketches, Select and Use Color Themes for Graphic Design, Paper Sizes.	
Unit II	(15 Hours) Principles of Graphic Design- Alignment, Hierarchy, Contrast, Repetition, Proximity, Balance, Color, Space, Basic Elements of Graphic Design - Line, Shape, Repetition, Color, Texture, Size, Emphasis, Space, Negative Space, Value	
Unit III	(15 Hours) Photoshop: Understanding Raster Graphics, Understanding Pixels, Understanding Image, Understanding Layers, Image Size and Resolution, Brushes, Styles and Textures, Using Filters for effects, Color Adjustment, Image Editing for Print Projects, Image Editing for Web.	
Unit IV	(15 Hours) Illustrator / Corel Draw: Understanding Vector Graphics, Draw and Edit Line and Shapes, Understanding Object, Understanding Colors, Basic Transformations, Create Perfect Shapes, Advance Transformations, Layout & Composition Tools, Create Various Vector Effects, Advance Color Study, Object Drawing and Painting.	
Suggested Readings	- How to Draw What You See: Rudy De Reyna - Figure Study Made Easy: Aditya Chari Figure Drawing Without a Model: Ron Tiner	

Course Code	CourseTitle	Credits 04
ME 303	2D Digital Animation	Marks : 100
Objective	• Understand and apply techniques about flash animation • Acquire knowledge about various principles of animation and its usage. • Will gain the knowledge of handling a project at industrial requirement.	
Outcomes	• Capture & Hold Attention. There is a reason that animation has been so successful with children; it can grab and hold their attention, which is no easy feat. ... • Communicate More Easily. ... • Engage Deeper. ... • Cost Effective.	
UnitI	Introduction to animation, History of animation, Types of animation: case study, Understanding and learning the Principles of animation through the view of different animation films: case study (15 Hours)	
UnitII	Understanding the Flash interface, setting stage dimensions, Drawing tools, pen tools and other necessary tools to create any drawing in the frames (15 Hours)	
UnitIII	Drawings to symbols, Different types of symbols, Organizing library, Organize character to different symbols (15 Hours)	
UnitIV	Introduction to timeline, Classic tween, Shape tween, Keyframes, Ease in and Ease out using edit ease graph, Document setup, Layers, Layer properties, Mask layer, Guide layer. (15 Hours)	
Suggested Readings	• Mastering Mental Ray: Rendering Techniques for 3D and CAD Professionals • Photoshop for 3D Artists, • Advanced Maya Texturing and Lighting: Lee Lanier Maya Studio Projects Texturing and Lighting: Lee Lanier	

SkillCourses:

Course Code	Course Title	Credits 04
ME304	Web Design Fundamental	Marks : 100
Objective	High lighting the theories and principles underlying website design.	
Outcome	Understand the concept of design and implementation of HTML CSS to design a particular design of their creativity.	
UnitI	(15 Hours) Wordpress – Overview, What Is Content Management System (Cms)?, Features, Advantages, Disadvantages, Wordpress – Installation, System Requirements For Wordpress, Download Wordpress, Create Store Database, Set Up Wizard	
UnitII	(15 Hours) Wordpress – Dashboard, Dashboard Menu, Screen Options, Welcome, Quick Draft, Wordpress News, Activity , Settings, General Settings , Writing Settings, Reading Settings, Discussion Settings, Media Settings, Permalink Settings, Plugin Settings	
UnitIII	(15 Hours) Categories - Add Category, Edit Category, Delete Category, Arrange Categories Posts - Add Posts, Edit Posts, Delete Posts, Preview Posts, Publish Posts, Media- Media Library, Add Media, Insert Media, Edit Media	
UnitIV	(15 Hours) Pages - Wysiwyg Editor, Text Insertion, Publish, Page Attribute, Featured Images, Publish Pages, Edit Pages, Delete Pages Tags - Edit Tags, Delete Tags, Links, Add Links, Edit Links, Delete Links, Comments - Add Comments Edit Comments Moderate Comments Plugins, Install Plugins Customize Plugins, User Roles, Add Users, User Photo Edit Users Delete Users, Personal	
Suggested Readings	1. Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India 2. Web Technologies, Black Book, Dreamtech Press 3. HTML 5, Black Book, Dreamtech Press 4. Web Design, Joel Sklar, Cengage Learning 5. Internet and World Wide Web How to program, P. J. Deitel& H. M. Deitel, Pearson	

Course Code	Course Title	Credits 04
ME 305	3D Modeling and Visualization	Marks : 100
Objective	- This course is meant to introduce the student to the world of 3D. In this course, the student will learn about how to work in 3D space, model, and texture, apply lights and finally take a render output of creation. - To develop the skill & knowledge in 3D Modelling	
Outcome	- Create 3d visualizations for their designs. - The software has capabilities to render designs using photo- realistic models. - It provides controls you need to create highly realistic models.	
Unit I	(15 Hours) Introduction: Introduction to 3D graphics, 3D Object's Coordinate System: X, Y and Z axis, 3DS MAX Overview, Interface, 3DS MAX Basic, Navigation, Creating Basic Objects, Selecting, Moving, Rotating and Scaling Objects, Transforming Objects, Pivoting, Aligning and Snapping, Grouping, Linking and Parenting Objects	
Unit II	(15 Hours) 3DS MAX Modeling Tools: Extrude, Bevel, Bridge, Connect, Chamfer, Target Weld, Pivot Point Modifiers, Object duplication, Measurement Units, Scene Management, Scene Explorer	
Unit III	(15 Hours) Modeling: Step-by-Step Modeling Exercises, Primitives Modeling Techniques, Polygon Modeling Techniques, Spline Modeling Techniques, Surface Modeling Techniques	
Unit IV	(15 Hours) Texturing: Using the material editor & the material explorer, creating & applying standard materials, adding material, details with maps, creating compound materials & material modifiers, using atmospheric & render effects Cameras, Lighting & Rendering: Configuring and Aiming Cameras, Basic Lighting Techniques, Render Parameters light setup, rendering settings, Final render setting.	
Suggested Readings	3ds Max 2018 - Getting Started with Modeling, Texturing, and Lighting by Elizabeth - VT and Ravi Connor - Career Options for a Subject: 3D Designer 3D Max Artist 3D Visualizer	

Course Code	CourseTitle	Credits 04
ME 306	Set Designing	Marks : 100
Objective	• Create 3d visualizations for their designs. • The software has capabilities to render designs using photo- realistic models. • It provides controls you need to create highly realistic models.	
Outcome	• This course is meant to introduce the student to the world of 3D. In this course, the • student will learn about how to work in 3D space, model, and texture, apply lights andfinally take a render output of creation. • To develop the skill & knowledge in 3D Modeling	
UnitI	(15 Hours) Introduction: Introduction to 3D graphics, 3D Object's Coordinate System: X, Y and Z axis, 3DS MAX Overview, Interface, 3DS MAX Basic, Navigation, Creating Basic Objects, Selecting, Moving, Rotating and Scaling Objects, Transforming Objects, Pivoting, Aligning and Snapping, Grouping, Linking and Parenting Objects	
UnitII	(15 Hours) 3DS MAX Modeling Tools: Extrude, Bevel, Bridge, Connect, Chamfer, Target Weld, Pivot Point Modifiers, Object duplication, Measurement Units, Scene Management, Scene Explorer	
UnitIII	(15 Hours) Modeling: Step-by-Step Modeling Exercises, Primitives Modeling Techniques, Polygon Modeling Techniques, Spline Modeling Techniques, Surface Modeling Techniques	
UnitIV	(15 Hours) Texturing: Using the material editor & the material explorer, creating & applying standard materials, adding material, details with maps, creating compound materials & material modifiers, using atmospheric & render effects	
Suggested Readings	Cameras, Lighting & Rendering: Configuring and Aiming Cameras, Basic Lighting Techniques, Render Parameters light setup, rendering settings, Final render setting.	

PracticalSkillCourses:

Course Code	CourseTitle	Credits 02
ME 307	LAB1:	Marks : 50
	(30 Hours)	
	Practical List: • Creating a structure of the web page layout. • Creating basic wireframe layout using Adobe Photoshop. • Creating lists using basic HTML coding. • Creating web layouts using tables method in Adobe Dreamweaver. • Working on the basics of Cascading Style Sheet. • Creating a basic layout using CSS styling. • Creating basic links for buttons using HTML coding. • Creating rough paper work layout of a commercial static webpage for the genre. • Creating different sitemap layout of a commercial static webpage for the genre. • Creating banner advertisements related to commercial products for the static web pages. • Designing approved commercial static responsive web-pages using	

Course Code	CourseTitle	Credits 02
ME 308	LAB2:	Marks : 50
	(30 Hours)	
	Practical List: • 3D interface (Maya) • Transforming, Rotating, Scaling Tool • Object properties, Hierarchies, Pivots • Set Project • Modeling Overview • Importing 3D Model Sheet • Creating 3D Model: Body (Torso, Face, Eyes, Nose, Ears, Mouth, Hand, Feet etc.) • Use Extrude Command • Combine & Extract, Merge Vertex Tool • Insert Edge Loop Tool, Multi Cut Tool, Create Polygon Tool • Sculpting Character: Sculpt Geometry Tool • Soft Modification Tool Polygon Hair and Cloth	

Course Code	CourseTitle	Credits 02
ME 309	LAB3:	Marks : 50
	Practical List: • Material Classification • Mapping • Unwrap Model • Creating Texture in Photoshop • Adjust Textures in UV Layout • Apply texture on Object • Types of Lights • Lighting Texturing and Environment Setup	

Semester-IV:General Education

Course Code	CourseTitle	Credits 04
ME 401	Web Design	Marks : 100
Objective	High lighting the theories and principles underlying website design Understand the concept of design and implementation of HTML CSS to design a particular design of their creativity	
Outcomes	Apply intermediate and advanced web development practices. Implement basic JavaScript. Create visualizations in accordance with UI/UX theories. Develop a fully functioning website and deploy on a web server.	
UnitI	(15 Hours) Fundamental of Web Design: What is Web Design?, How the Web Works , Step for Website Design	
UnitII	(15 Hours) Photoshop: Understanding Raster Graphics, Understanding Pixels, Understanding Image, Understanding Layers, Image Size and Resolution, Color Adjustment, Image Editing for Print Projects, Image Editing for Web.	
UnitIII	(15 Hours) Structuring an HTML Document – Elements and Attributes, Tags, The DOCTYPE Element, Creating and Saving an HTML Document, Validating an HTML Document, Viewing an HTML Document, Hosting Web Pages, Understanding Elements, Working with Text, Defining the DIV Element and SPAN Element, Working with Links The target Attribute, The id Attribute, Creating Tables, Working with Images, Colors and Canvas, Working with Forms, Working with Multimedia	
UnitIV	(15 Hours) CSS - Evolution, Syntax, CSS Selectors, Inserting CSS in an HTML Document, Backgrounds and Color Gradients in CSS, Font Properties, Creating Boxes and Columns Using CSS, Displaying, Positioning, and Floating an Element, Effects, Frames and Controls in CSS	
Suggested Readings	1. Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India 2. Web Technologies, Black Book, Dreamtech Press 3. HTML 5, Black Book, Dreamtech Press 4. Web Design, Joel Sklar, Cengage Learning 5. Internet and World Wide Web How to program, P. J. Deitel& H. M. Deitel, Pearson	

Course Code	CourseTitle	Credits 04
ME 402	Character Design	Marks : 100
Objective	• After completing this course, students will be familiar with a typical work-flow for creating • 3D art assets in a modern game engine. Students will gain understanding of techniques and • technical specifications of common high-quality Model used in Film and Games today.	
Outcomes	• Character design aims to make these characters engaging, visually stimulating, and memorable. In the world of visual arts and animation, artists have the opportunity to create characters from absolute scratch. This allows them to use every aspect of design to create a unique character	
UnitI	(15 Hours) Introduction: 3D interface, Basic skills for handling the selected software like transforming objects, Object properties, Hierarchies, Pivots Etc.	
UnitII	(15 Hours) Interface: Creating a New Project, Editing and Changing Projects, File References.	
UnitIII	(15 Hours) Tools Of Modelling : Polygon Vertices, Polygon Edges, Polygon Faces, Working with Smooth Polygons, Understanding NURBS, Understanding Curves, Understanding NURBS Surfaces Surface Seams, NURBS Display Controls.	
UnitIV	(15 Hours) The Process Of 3D Character Creation : Male or female anatomy. Body Structure - Proportion and construction of body parts (Torso, Face, Eyes, Nose, Ears, Mouth, Hand, Feet etc. Sculpting Polygons : Soft Select Tool, Sculpting Polygons.	
Suggested Readings	• How to Draw What You See: Rudy De Reyna • Figure Study Made Easy: Aditya Chari • Figure Drawing Without a Model: Ron Tiner	

Course Code	Course Title	Credits 04
ME 403	Advanced Lighting Texturing	Marks : 100
Objective	- To be a good Lighting & Texturing Artist - Doing freelance projects of Lighting & Texturing in Interior & Exterior Scene, etc. - Utility: - Classroom & Lab Training in Vital features of lighting and Texturing. - Be able to make lighting and Texturing in short films and Animated films.	
Outcomes	General lighting is important to a home because it improves the mood, creating a warm and bright ambiance as opposed to gloomy and unattractive spaces. Insufficient lighting will make family members and friends avoid the areas, while also making a room feel cramped	
UnitI	(15 Hours) Understanding Material Properties, Working With Slate Material Editor Using the Standard Material, Working with Maps, Using Compound Material	
UnitII	(15 Hours) Using the Shading Type, Material Modifiers, Mapping Modifiers, Using Unwrap UV Modifiers, Using the Edit UV Interface	
UnitIII	(15 Hours) Learning work with camera, Creating Camera Objects, Setting Camera Parameters, Understanding the basic of light	
UnitIV	(15 Hours) Know the light types Crating and Positioning Light Objects, Viewing a Scene From a Light, Altering Light Parameters	
Suggested Readings	- Mastering Mental Ray: Rendering Techniques for 3D and CAD Professionals - Photoshop for 3D Artists, - Advanced Maya Texturing and Lighting: Lee Lanier - Maya Studio Projects Texturing and Lighting: Lee Lanier	

SkillCourses:

Course Code	CourseTitle	Credits 04
ME 404	Character Rigging	Marks : 100
Objective	• In this Maya Course, we will understand all about rigging with characters. Working on • making connections, basic joint structure, creating controllers and lastly learning skinning is • all covered in this module.	
Outcome	• Animators use these to pose and animate the character. • One purpose of joints is to define the freedom that the character has in its Movement.	
UnitI	(15 Hours) Unit 1: Introduction : Understanding Rigging, Character Structure, Joints and their manipulations, IK and FK, Attribute controls, Rig controls.	
UnitII	(15 Hours) Character Skeleton : Creating and Organizing Joint Hierarchies, Orienting Joints, Naming Joints Mirroring Joints.	
UnitIII	(15 Hours) Rigging the Character : Rigging the Character, IK Legs, FK Blending, Rotate Plane Solver, Creating Custom Attributes, Driven keys, Constraints, Spline IK.	
UnitIV	(15 Hours) Human Inverse Kinematics : Skeleton Generator, Character Controls, Interoperability, Fk&Ik Switch.	
Suggested Readings	• Animation Methods -Rigging Made Easy: Rig Your First 3D Character in Maya: • David Rodriguez • Blender Studio Projects: Digital Movie Making: Tony Mullen, Claudio Andaur • Maya Character Rigging: Cheryl Cabrera • Career Options: • Rigging Artist in Film Production	

Course Code	CourseTitle	Credits 04
ME 405	Advanced Animation	Marks : 100
Objective	- This paper covers larger details of character animation process and wherein student would be - learning more techniques of animation to be incorporated in a film. They shall also learn the - lip sync and acting process that adds life to the film.	
Outcome	- Classroom & Lab Training in Vital features of animation, covering stages from - Storyboarding to creation of the final movie. - Be able to make Smooth 3d Animation in short films and Animated films.	
UnitI	(15 Hours) Introduction : Timeline, Key frame, Frame rate, Poses, Line of action, Working with 3d Rigs: Importance of poses, Creation of poses from reference images, Importance of familiarizing with the rig's controllers, Understanding the body mechanic	
UnitII	(15 Hours) Bouncing ball with (spacing, Timing and distance), Different materials bouncing balls together with Concept, Understanding the usage of Graph Editor, Progressive Bouncing Ball with (timing, spacing & distance), Progressive Bouncing Ball with (Stretch and Squash	
UnitIII	(15 Hours) Pendulum with Settlement, Box with antenna Introduction to Character Studio	
UnitIV	(15 Hours) Motion Mixer, Posing for understanding the body balance and arc, Walk Cycle, RunCycle.	
Suggested Readings	- The Book of Animation Survival Kit by Richard Williams - The Book of Cartoon Animation by Preston Blair - The Book of Animation For Beginners by MorrMeroz - Career Options: 3D Animation Artist in Film Production & Add.	

Course Code	CourseTitle	Credits 04
ME 406	Managing a Hosted Website	Marks : 100
Objective	At the end of the course the student will learn basic concepts of WordPress.	
Outcome	Will gain the knowledge of handling a project at industrial requirement.	
UnitI	(15 Hours) Introduction, Demo Website Tour, Getting Best & Fastest Hosting, Installing FREE SSL	
UnitII	(15 Hours) Installing WordPress, Basic & Important WordPress Settings, Installing FREE Theme & Plugins, WooCommerce Quick Setup, WooCommerce General Settings, WooCommerce Products & Inventory	
UnitIII	(15 Hours) Product Tax, VAT & GST, Product Shipping, Shipping Classes, PayPal & Stripe Payment Gateway Integration, Other WooCommerce Settings, Creating Simple Product, Creating Variable Product, Creating Digital Downloadable Product, Creating Home Page	
UnitIV	(15 Hours) What is Elementor Page Builder?, Home - First Hero Section, Making Website Mobile & Tablet Friendly, Featured Categories Section, Brands Carousel, Product Tabs Section, Colorful Info Section, Creating Blog Posts, Creating Track Order Page, About Us & Contact Page, Wishlist Setup	
Suggested Readings	- Developing Web Applications, Ralph Moseley and M. T. Savaliya, Wiley-India - Web Technologies, Black Book, Dreamtech Press - HTML 5, Black Book, Dreamtech Press - Web Design, Joel Sklar, Cengage Learning Internet and World Wide Web How to program, P. J. Deitel & H. M. Deitel, Pearson	

PracticalSkillCourses:

Course Code	CourseTitle	Credits 02
ME 407	LAB1:	Marks : 50
	(30 Hours)	
	Practical List: All work of Character Modeling, Backgroundand design project on specific event.	

Course Code	CourseTitle	Credits 02
ME 408	LAB2:	Marks : 50
	(30 Hours)	
	Practical List : • Rigging Overview • Joints and their manipulations • Attribute controls • Freeze Transformation, Centering Pivot • Create Joint Skeleton • Use IK Handle & IK Spline Handle • Mirror Joint, Orient Joint	

Course Code	CourseTitle	Credits 02
ME 409	LAB3:	Marks : 50
	(30 Hours)	
	Practical List : • Constrain (Point, Aim, Orient, Scale, Parent, Pole Vector) • Add Attribute • Component Editor • Set Driven Key • Expression Editor Smooth Bind, Paint Skin Weight Tool, Mirror Skin Weight	

Ms. J. S.
19/10/2022

20/10/22

20/10/2022

[Signature]
Principal
Janvikas Mahavidyalaya,
Bansarola, Tq. Kaij, Dist: Beed

MARATHWADA UNIVERSITY AURANGABAD



SYLLABUS OF BACHELOR OF VOCATIONAL IN

B.Voc in Media & Entertainment Sem-V & VI

Choice Based Credit System

Effective from the Academic Year

2020- 21 Onwards



कृष्णाई शिक्षण प्रसारक मंडळ, तातूर संचलित,

जनविकास महाविद्यालय, बनसरोळा

ता. केज, जि. बीड - ४३१५१८ (महाराष्ट्र)

दूरध्वनी (०२४४५) २३७२४९, फॅक्स : ०२४४५ - २३७२४९

संलग्न : डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद

Email : principaljanvikas@rediffmail.com

सौ. आर.ए. तट

अध्यक्ष

डॉ.बी.एम. गोरे

सचिव

डॉ. बाबासाहेब गोरे

प्राचार्य

पत्रक्र. : जमब/अभ्यासक्रम/२०२२-२३/८८६

दि. ०९/१०/२०२२

7/10/2022

प्रति,

मा. उपकुलसचिव,

शैक्षणिक विभाग (बी.व्होक.),

डॉ.बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ,

औरंगाबाद.



विषय:- बी.व्होक. तृतीय वर्ष (पाचवे व सहावे सत्र) पदवी कोर्सचा अभ्यासक्रम प्रमाणित करुन मिळणे बाबत.

संदर्भ:- १) UGC आदेश क्र. F.No.4-1/2020(NSQF) September, 2020.

२) शैक्ष/संलग्न/वायपीएस/२०२०-२१/३१४७२-८० दि.२४.०५.२०२१.

महोदय,

वरील संदर्भित पत्रान्वये आमच्या महाविद्यालयात संदर्भ क्र. १ नुसार विद्यापीठ अनुदान आयोगाने बी.व्होक. च्या (1) Media & Entertainment (2) Medical Laboratory Technology (3) E-Commerce & Digital Marketing (4) Software Development या चार कोर्सला मान्यता दिली. त्यानुसार शैक्षणिक वर्ष २०२०-२१ मध्ये सदरील पदवी कोर्सच्या प्रथम वर्ष अभ्यासक्रमास मान्यता मिळाली असून शै.वर्ष २०२२-२३ करिता तृतीय वर्ष (पाचवे व सहावे सत्र) पध्दतीचा अभ्यासक्रम विद्यापीठाच्या विहीत फॉरमॅट मध्ये तयार करुन मान्यतेसाठी सादर करत आहोत.

तरी सदरील द्वितीय व तृतीय वर्षाचा अभ्यासक्रम प्रमाणित करुन पुढील कार्यवाही व्हावी ही नम्र

विनंती.

सोबत :

- १) अभ्यासक्रम आराखडा द्वितीय व तृतीय वर्ष (४ कोर्स)
- २) अभ्यासक्रम आराखडा सॉफ्ट कॉपी (सी.डी.)

आपला विश्वासू

प्राचार्य

जनविकास महाविद्यालय,
बनसरोळा, ता. केज जि. बीड

Put up for
next month

2022-23



Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

Uniform Curriculum Structure

Bachelor of Vocation

(B. Voc. T.Y.: Media & Entertainment)

(University Department and all Affiliation College)

Choice Based Credit System
B.Voc.T.Y. (V & VI Sem.)

Ms. J. J. J.
19/10/22

20/10/2022

Dr. J. J. J.
20/10/22
Dean
Faculty of Interdisciplinary Studies
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad

TITLE OF THE PROGRAMME

B. Voc. (Media & Entertainment)

1. Preamble:

Skills and knowledge are the driving forces of economic growth and social development for any country. Presently, the country faces a demand – supply mismatch, as the economy needs more „skilled“ workforce than that is available. In the higher education sphere, knowledge and skills are required for diverse forms of employment in the sectors of education, health care, manufacturing and other services.

Government of India, taking note of the requirement for skill development among students, launched National Vocational Education Qualification Framework (NVEQF) which was later on assimilated into National Skills Qualifications Framework (NSQF). Various Sector Skill Councils (SSCs) are developing Qualification Packs (QPs), National Occupational Standards (NOSs) and assessment mechanisms in their respective domains, in alignment with the needs of the industry.

In view of this our University initiated to start skill based courses which are in demand of industries to be carry responsibilities of society. The programme is highly relevant for all those who want to pursue a professional career in Medical Laboratory Technology.

2. Eligibility: 10+2 Pass

3. Program outcome:

- □□ First Exit Point (Diploma) and Outcome of First Year
- □□ Second Exit Point (Advance Diploma) and Outcome of Second Year
- □□ Third Exit Point (B. Voc. Degree) and Outcome of Third Year

Students will be awarded:

Certificate	Student shall be required to appear in examinations of all courses. However, to award the Certificate (Media & Entertainment) a student shall study the minimum of 30 credits course and opt minimum passing credits as per university rule.
Diploma	Student shall be required to appear in examinations of all courses. However, to award the Diploma (Media & Entertainment) a student shall study the minimum of 60 credits course and opt minimum passing credits as per university rule.
Advanced Diploma	Student shall be required to appear in examinations of all courses. However, to award the Advanced Diploma (Media & Entertainment) a student shall be required to study minimum of 120 credits course and opt minimum passing credits as per university rule.
B.Voc Degree	Student shall be required to appear in examinations of all courses. However, to award the degree a student shall be required to study minimum of 180 credits course and opt minimum passing credits as per university rule..

4. Assessment:

The Skill component of the course will be generally assessed by the respective Sector Skill Councils. In case, there is no Sector Skill Council for a specific trade, the assessment may be done by an allied Sector Council or the Industry partner. Further if Sector Skill Council in concerned / relevant trade has no approved QP which can be mapped progressively or due to any other reason, if the SSC expresses its inability to conduct the assessment or cannot conduct the skill assessment in stipulated time frames as per academic calendar, the institutions may conduct skill assessment through a Skill Assessment Board by „Certified Assessors“ as per the provisions enumerated in MHRD Skill Assessment Matrix for Vocational Advancement of Youth (SAMVAY). The Skill

Assessment Board may have Vice-Chancellor/Principal/Director/Nodal officer/Coordinator of the programme / Centre, representatives of the partner industry (s),

one nominee of the Controller of Examination or his/her Nominee of affiliating University / Autonomous College and at least one external expert. The affiliating university may nominate additional experts on the Skill Assessment Board, if required.

The certifying bodies may comply with / obtain accreditation from the National Accreditation Board for Certification Bodies (NABCB) set up under Quality Council of India (QCI). Wherever the university/college may deem fit, it may issue a joint certificate for the course(s) with the respective Sector Skill Council(s).

The general education component will be assessed by the concerned university as per the prevailing standards and procedures. General Education credit refers to a unit by which the course work is measured. It determines the number of hours of instructions required per week.

One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Accordingly, one Credit would mean equivalent of 14-15 periods of 60 minutes each or 28 – 30 hrs of workshops/ labs. For internship / field work, the credit weightage for equivalent hours shall be 50% of that for lectures /tutorials. For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study shall be 50% of that for lectures / tutorials.

The institutions offering B.Voc degree programme should adopt and integrate the guidelines and recommendations of the respective Sector Skill Councils (SSCs) for the assessment and evaluation of the vocational component, wherever available.

Letter Grades and Grade Points: it is recommended to adopt 10- point grading system with the Letter grades as given below:

Grades and Grade Points

Letter Grade

O (Outstanding) A+ (Excellent) A (Very Good) B+ (Good) B (Above Average) C (Average) P (Pass) F(Fail)

Grade Point 10 9 8 7 6 5 4 0 0

A student obtaining Grade F and Ab shall be considered failed and he/she will be required to reappear in the examination. Computation of Semester Grade Point Average System (SGPA) and Cumulative Grade Point Average (CGPA):

Ab

(Absent)

Passing percentage for each paper each course is 40%. Separate passing for continuous assessment and end semester examination and/or as per time to time guidelines of the university.

The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the course components taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester, i.e

$$\text{SGPA (Si)} = \Sigma(C_i \times G_i) / \Sigma C_i$$

where 'C_i' is the number of credits of the ith course component and 'G_i' is the grade point scored by the student in the ith course component.

The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \Sigma(C_i \times S_i) / \Sigma C_i$$

Where 'S_i' is the SGPA of the ith semester and C_i is the total number of credits in that semester. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

The skill component would be taken as one of the course components in calculation of SGPA and CGPA with given credit weightage at respective level.

Semester VI

Sr. No.	Subject Code	Title of the Subject	Contact Hours Per Week		Evaluation Scheme (Marks)		Credi t
			L	P	CIA	SEE	
	General Education						
1	ME 601	Roto and Stereo Paint	4	0	20	80	4
2	ME 602	2D and 3D Compositing	4	0	20	80	4
3	ME 603	Match moving with Live Action	4	0	20	80	4
	Skill Courses						
4	ME 604	Final Editing in VFX	4	0	20	80	4
5	ME 605	Game Designing	4	0	20	80	4
6	ME 606	Project	4	0	20	80	4
	Practical Skill Courses						
7	ME 607	LAB4: Roto and Stereo Paint	0	4	25	25	2
8	ME 608	LAB5: 2D and 3D Compositing	0	4	25	25	2
9	ME 609	LAB6: Basic of Marketing	0	4	25	25	2
	Total				195	555	30

Majhi
19/10/22

20/10/22
19/10/22

20/10/22
Dean
Faculty of Interdisciplinary Studies
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad

Semester – V : General Education

Course Code	Course Title	Credits 04
ME501	Video Editing	Marks : 100
Objective	In this class, we will study terminology and concepts, learning both the rules and how to break them, as we look at the aesthetics choices and the technological workflow for both picture and sound editing. We will examine the historical role of editing, from the earliest silent film through the digital revolution that has transformed moviemaking today.	
Outcomes	Aside from being cost-effective and time-saving, utilizing professional video editing software may significantly improve your productivity. It's a simple option that saves time, effort, and money, enabling you to put those resources to better use elsewhere.	
Unit I	1)The Premiere Pro interface features and functions 2) how to import and organize footage, basic editing techniques 3) Setting Up for Editing Efficient editing habits to work faster	(15 Hours)
Unit II	Working in the Timeline, Transitions, Keyframing, Filters, Ingesting	(15 Hours)
Unit III	Color Correction, Audio, Titling, Review and Look Forward	(15 Hours)
Unit IV	working on project , creating Documentary, Short Film,plug ins, outputs, renders, exports	(15 Hours)
Suggested Readings	Books : - The History of Film Editing, KarelReisz, Gavin Miller - On Film Editing, Edward Dmytrk - Film Editing: Great Cuts Every Filmmaker Should Know, Gael Chandler - First Cut: Conversations with Film Editors, Gabriella Oldham Willam Stallings: Business Data Communications, 2007, Pearson Education, New Delh - Digital Video Editing Fundamentals, Wallace Jackson, 13 April 2016, ISBN:9781484218662, 148421866 Weblink : https://www.veed.io/ https://invideo.io/make/online-video-editor/ https://clideo.com/video-editor https://www.youtube.com/watch?v=-Y0YXZHB_98 https://www.adobe.com/in/creativecloud/video/discover/edit-a-video.html https://www.canva.com/video-editor/	

Course Code	Course Title	Credits 04
ME502	Roto Art	Marks : 100
Objective	Read and understand the user and technical specifications of equipment and software. • Gather and watch raw footage/material. • Gather references of work-products and productions that could provide ideas and help conceptualize possibilities for post-production	
Outcomes	Rotoscope animation describes the process of creating animated sequences by tracing over live-action footage frame by frame. Though it can be time consuming, rotoscoping allows animators to create lifelike characters who move just like people in the real world.	
Unit I	(15 Hours) Understanding rotoscoping objectives, which could include Tracing live action images for Animation Creating depth maps for Stereo conversion Removing faults/wires in live action footage	
Unit II	(15 Hours) Rotoscoping -Uses and advantages of rotoscoping, Creating rotos with splines, Hierarchical parent and child roto shapes, Interpolation technique, Keyframerotos, Final inspection, Rotoscope motion blur and semi transparency	
Unit III	(15 Hours) Mask: Creating masks, Mask points, Mask feather tool, Animating masks, Mask by painting. Track mattes: Luma matte, Alpha matte, Traveling matte, RGBA. Motion blur. RAM Preview: Setting resolution for preview.	
Unit IV	(15 Hours) Tracking: Motion tracking, Motion stabilization, Camera tracking . Problems faced during tracking, Time-stretching, time-remapping and time warp effects	
Suggested Readings	Books: • Rotoscoping Techniques and Tools for the Aspiring Artist Paperback • Inside VFX: An Insider's View Into The Visual Effects And Film Business (Kindle• Edition) artiste Matte Painting 3 (Hardcover) • My Google Apps, By Patrice-Anne Rutledge, Sherry Kinkoph Gunter · 2014, Pearson Education • Rotoscoping, By Benjamin Bratt · 2012, Publisher: Taylor & Francis Weblink : • https://www.naukri.com/roto-artist-jobs • https://framestore.recruitee.com/o/roto-artist • https://www.nsdindia.org/roto-artist • www.rotoartstudios.com (unsafe) • https://www.glassdoor.co.in/Salaries/roto-paint-artist-salary-SRCH_KO0,17.htm	

Course Code	Course Title	Credits 04
ME503	Compositing	Marks : 100
Objective	This course introduces the student to advanced tools and compositing techniques.	
Outcomes	[Instructor] What is compositing? Loosely, it's the combining of two or more visual elements into a cohesive image. As an example, compositing in its simplest form is placing one image on top of another, like adding a layer of text onto a picture or drawing a goofy mustache on a selfie.	
Unit I	Color correction and color grading: Primary and secondary color correction, Correcting and matching shots, Basic color grading, Colour balancing of elements, Vignettes (15 Hours)	
Unit II	Rotoscoping -Uses and advantages of rotoscoping, Creating rotos with splines, Hierarchical parent and child roto shapes, Interpolation technique, Key framerotos, Final inspection, Rotoscope motion blur and semi transparency (15 Hours)	
Unit III	Mask: Creating masks, Mask points, Mask feather tool, Animating masks, Mask by painting. Track mattes: Luma matte, Alpha matte, Traveling matte, RGBA. Motion blur. RAM Preview: Setting resolution for preview. Uses of pre-composition and nesting. Puppet tools. Effects and Presets: Applying effects from effects and preset panel, Compound effects. What is expressions? (15 Hours)	
Unit IV	Applying simple expressions (15 Hours)	
Suggested Readings	Books : 1.Compositing Visual Effects: Steve Wright 2.Digital Compositing for Film and Video: Focal Press 3. The Art and Science of Digital Compositing, By Ron Brinkmann · 2008, Publisher: Elsevier Science Weblink: • https://www.google.co.in/books/edition/The_Art_and_Science_of_Digital_Compositi/O_W0_8opPgoC?hl=en&gbpv=0 • https://youtu.be/umNHmjTSI4I • https://www.masterclass.com/articles/compositing-guide • https://blog.storyblocks.com/video-tutorials/what-is-compositing-in-video-editing/ • https://lostboys-studios.com/advanced-visual-effects-compositing/	

Skill Courses:

Course Code	Course Title	Credits 04
ME504	3D Compositing	Marks : 100
Objective	- Whenever someone makes a CGI element, someone else has to composite it. In this - section we will look at three general areas where CGI elements are composited. First	
Outcomes	At its core, After Effects is compositing software. But what exactly does compositing mean? Essentially, compositing is combining two or more video clips or pictures together, and making them look like they are part of the same scene.	
Unit I	(15 Hours) Camera and lighting techniques necessary to complete each shot effectively: Structure of digital images: The Pixel, greyscale and colour images, Four channel images, LDR and HDRI images, Image resolution, Pixel & image aspect ratio, Digitizing image, Bit depth, Compression, File formats, DPI, What is a plate in Vfx? Who is a plate supervisor? Basics of Match moving –2D tracking process –Automatic tracking	
Unit II	(15 Hours) Compositing CGI: Foreground image, Background image, Matte, Alpha channel (Premultiplied and non-premultiplied alpha compositing), Gray pixels in matte, Compositing the layers, Blending and colour correcting the layers/nodes	
Unit III	(15 Hours) Multi-pass rendering workflow to support advanced post and compositing: Multipass: Specular pass, Diffuse pass, Occlusion pass, Shadow pass, Reflection pass, Composite different passes, Creative control of passes using image blend modes and colour correction techniques.	
Unit IV	(15 Hours) Node-based or layer-based compositing tools as necessary to assemble the shots and rendered assets: 3D in live action -Principles of camera tracking, Set Extensions, Film live action set, Create photorealistic 3D set in 3D software, High Dynamic Range Imagery (HDRI) for photorealistic lighting and reflection mapping, Composite live action set and 3D set adjusting lighting, Shadows, Alignment and other interactive elements	
Suggested Readings	Books : 1.Digital Lighting and Rendering (2nd Edition): Jeremy Birn 2.Compositing Visual Effects: Steve Wright 3Digital Compositing for Film and Video: Focal Press Weblink: https://www.creativebloq.com/how-to/compositing-basics https://www.vegascreeativesoftware.com/in/post-production/compositing-in-animation-what-it-is-and-how-its-done/ https://www.youtube.com/watch?v=thXDj_sYZtc https://www.youtube.com/watch?v=Zl_FXc2iXek https://learn.foundry.com/nuke/content/comp_environment/3d_compositing/3d_compositing.html https://www.dsourc.in/course/compositing-and-effects/2d-animation#:~:text=In%20D%20animation%2C%20the%20workflow,fall%20at%20the%20Production%20phase.	

Course Code	Course Title	Credits 04
ME505	Compositing With VFX	Marks : 100
Objective	- Whenever someone makes a CGI element, someone else has to composite it. In this - section we will look at three general areas where CGI elements are composited. First - up is straightforward CGI compositing where a CGI object has been created and - needs to be composited into the scene.	
Outcomes	Compositing is often used for 2D content, layering multiple images and print for still images in advertisements, memes and other content for print publications, websites and apps.	
Unit I	(15 Hours) Structure of digital images: The Pixel, greyscale and colour images, Four channel images, LDR and HDRI images, Image resolution, Pixel & image aspect ratio, Digitizing image, Bit depth, Compression, File formats, DPI, What is a plate in Vfx? Who is a plate supervisor? Basics of Match moving –2D tracking process –Automatic tracking	
Unit II	(15 Hours) Compositing CGI: Foreground image, Background image, Matte, Alpha channel (Premultiplied and non-premultiplied alpha compositing), Gray pixels in matte, Compositing the layers, Blending and colour correcting the layers/nodes	
Unit III	(15 Hours) Specular pass, Diffuse pass, Occlusion pass, Shadow pass, Reflection pass, Composite different passes, Creative control of passes using image blend modes and colour correction techniques.	
Unit IV	(15 Hours) Export camera parameters and motion path to 3D softwares: Color correction and post tools as necessary to uniformly polish the final project, 3D composting systems, Uses of 3D compositing, 3D compositing scene, Simple geometric shapes, Texture maps, 3D camera, Lightsshaders. Import 3D objects from 3D softwares, Composite 2D elements and 3D elements in 3D composite	

Suggested Readings	Books: 1.Digital Lighting and Rendering (2nd Edition): Jeremy Birn 2.Compositing Visual Effects: Steve Wright 3Digital Compositing for Film and Video: Focal Press Weblink: • https://www.adobe.com/creativecloud/video/hub/guides/what-is-vfx-compositing#:~:text=At%20its%20core%2C%20VFX%20compositing,re%20a%20part%20of%20reality. • https://www.cgspectrum.com/blog/what-is-compositing • https://www.screenskills.com/job-profiles/browse/visual-effects-vfx/compositing/compositor-visual-effects-vfx/ • https://www.arena-multimedia.com/in/en/courses/vfx/vfx-compositing-editing • https://www.udemy.com/course/vfx-compositing-visual-effects-after-effects-tutorials/?--=&utm_source=adwords&utm_medium=udemyads&utm_campaign=AfterEffects_v.PROF_la.EN_cc.INDIA_ti.4374&utm_content=deal4584&utm_term=.ag_124345971743_.ad_618853564489_.kw_.de_c_.dm_.pl_.ti_dsa-1396298668521_.li_9040235_.pd_.&matchtype=&gclid=Cj0KCQjwIvSZBhDuARIsAKZlijQmQbNQdKp2yIBW2oDK4vRmcSWrdexfKb5E7YXmk2UYPesyesEGMQUaAu29EALw_wcB
---------------------------	---

Course Code	Course Title	Credits 04
ME506	Match Moving	Marks : 100
Objective	- By exploring concepts in 3D camera match move of live action scenes, as well as rigid object - tracking, students experience tracking 3D shots by hand and by applying the use of camera - tracking softwares. Students analyze data and create seamless camera connections between live - action shots and 3D computer generated objects	
Outcomes	In visual effects, match moving is a technique that allows the insertion of computer graphics into live-action footage with correct position, scale, orientation, and motion relative to the photographed objects in the shot.	
Unit I	(15 Hours) History of tracking: Where did Matchmoving come from, who invented it, where was it first used? What is matchmoving based upon? -Rotoscoping and Photogrammetry. What is Matchmoving, How does it work? Camera tracking softwares, Two methods of defining the camera motion: Manual and Automatic	
Unit II	(15 Hours) 2D tracking process, Track placements, Plate issues	
Unit III	(15 Hours) Working method of film cameras, Importance of gathering data to recreate elements of the live footage in 3D, Good calibration process, Calibrating cameras, Evaluating the solution for a camera tracking, Calibrations and camera moves, Setting up a coordinate system supervised tracking, Importance of lighting in shooting	
Unit IV	(15 Hours) Project work based on the syllabus and parameters of the course under the guidance of supervising faculty.	
Suggested Readings	Books: 1.Match moving: The Invisible Art of Camera Tracking: Tim Dobbert 2.The Art and Science of Digital Compositing : Ron Brinkmaan 3.The Filmmaker's Hand Book : Steven Ascher and Edward Pincus 4. The Art and Technique of Matchmoving Solutions for the VFX Artist By Erica Hornung Weblink: • https://en.wikipedia.org/wiki/Match_moving • https://www.youtube.com/watch?v=OWSedr3aXgI • https://www.youtube.com/watch?v=guumNnPts5s • https://mountcg.com/what-is-matchmoving-and-what-does-a-matchmove-artist-do/ • https://www.oreilly.com/library/view/matchmoving-the-invisible/9781118529669/c01.html	

Practical Skill Courses:

Course Code	Course Title	Credits 02
ME 507	LAB1: Programming Lab based on VIDEO EDITING	Marks : 50
	Programming Lab based on I.T(VIDEO EDITING)	(30 Hours)

Course Code	Course Title	Credits 02
ME 508	LAB2: Programming Lab of ROTO ART	Marks : 50
	Programming Lab based of ROTO ART	(30 Hours)

Course Code	Course Title	Credits 02
ME 509	LAB3: PRACTICAL on 3D	Marks : 50
	3D	(30 Hours)

Semester – VI : General Education

Course Code	Course Title	Credits 04
ME601	Roto and Stereo Paint	Marks : 100
Objective	- Read and understand the user and technical specifications of equipment and software. - Gather and watch raw footage/material. - Gather references of work-products and productions that could provide ideas and help conceptualize possibilities for post-production	
Outcomes	RotoPaint is a vector-based node for help with tasks like rotoscoping, rig removal, garbage matting and dustbusting. You can draw Bezier and B-Spline shapes with individual and layer group attributes, including per-point and global feather, motion blur, blending modes and individual or hierarchical 2D transformations	
Unit I	(15 Hours) Understanding rotoscoping objectives, which could include Tracing live action images for Animation Creating depth maps for Stereo conversion Removing faults/wires in live action footage	
Unit II	(15 Hours) Rotoscoping -Uses and advantages of rotoscoping, Creating rotos with splines, Hierarchical parent and child roto shapes, Interpolation technique, Keyframe rotos, Final inspection, Rotoscope motion blur and semi transparency	
Unit III	(15 Hours) Mask: Creating masks, Mask points, Mask feather tool, Animating masks, Mask by painting. Track mattes: Luma matte, Alpha matte, Traveling matte, RGBA. Motion blur. RAM Preview: Setting resolution for preview.	
Unit IV	(15 Hours) Tracking: Motion tracking, Motion stabilization, Camera tracking . Problems faced during tracking, Time-stretching, time-remapping and time warp effects.	
Suggested Readings	Books : - Rotoscoping: Techniques and Tools for the Aspiring Artist Paperback - Inside VFX: An Insider's View Into The Visual Effects And Film Business (Kindle Edition) - artiste Matte Painting 3 (Hardcover) - Compositing Visual Effects: Essentials for the Aspiring Artist - Page 274 Steve Wright · 2013 Weblink: https://www.youtube.com/watch?v=Zs0DPjOli4A https://www.youtube.com/watch?v=dzw3u9TibG4 https://learn.foundry.com/nuke/content/comp_environment/rotopaint/rotopaint_and_stereo.html https://www.bigsharksstudio.com/portfolio-item/pixels-stereo-roto-paint/ https://www.youtube.com/watch?v=hV3KKI4WJxQ https://www.youtube.com/watch?v=h-lQR9X7lvo	

Course Code	Course Title	Credits 04
ME602	2D and 3D Compositing	Marks : 100
Objective	Learning advanced techniques for compositing and visual effects development; including CGI elements, camera match moving, multi-pass rendering and digital compositing.	
Outcomes	2D animation comprises of characters or objects only in height and width. In other words, in X- axis (horizontal dimension) and Y – axis (vertical dimension). 3D animation comprises of objects in height, width, and depth. In other words, characters are going to be more a realistic contrast to 2D characters.	
Unit I	(15 Hours) Procedures: Keying, Rotoscopy, Tracking And Stabilizing–Parenting –Masking –Alpha –Parallax –Color Correction –Adding Text –Render And Export.	
Unit II	(15 Hours) Introduction to color correction tools with sin city FX example, Day to Night (extract luma matte), mountain Lava FX, Use of Deep pixel tools using channel Boolean and openexr file, Compose 3d render passes, tools to remove chroma, Basic chroma remove, Garbage masking for keying, chroma remove in grainy footage, Part by part chroma remove, create macro design according your pipeline, Benefit of Macros, one point, two point and four point tracking, Stabilize shot, Extend the tracking information, Rotoscope using tracking Technique, introduction to 3D tools, Render 3d space, Interaction 3d tools with 2D tools, create shadow for a chroma shot using camera and lighting	
Unit III	(15 Hours) Camera projection using 3d tools in fusion, Import max/Maya file in to fusion and use them for camera projection, introduction to particle tools. 2D v/s 3D particle, Basic types of Emitters, Workflow of 3D and 2D particle system, Rain, snow effects using different forces tools, water drops on glass, Fireworks, Blood on wall,	
Unit IV	(15 Hours) Introduction to 3D Camera Tracking and Match Moving, Overview of Autodesk Match mover Interface, Working with Camera and Lens Distortion Auto Tracking -Free Move shot, AutoTracking -Zoom shot (Focal length variable)	
Suggested Readings	Books : - Adobe® After Effects® CS6 Visual Effects And Compositing Studio Techniques: Mark Christiansen - Secrets of Hollywood Special Effects: Robert E. McCarthy - Industrial Light & Magic - The Art of Special Effects: Thomas G. Smith - The Language of Visual Effects: Micheal J. McAlister [digital] Visual Effects and Compositing, Jon Gress · 2014 Weblink: https://www.youtube.com/watch?v=thXDj_sYZtc https://dreamfarmstudios.com/blog/compositing-in-animation-what-it-is-and-how-its-done/ https://www.musicaexpert.org/what-is-3d-compositing.htm https://www.foundry.com/products/nuke/features/2d-compositing-and-visual-effects https://pixelloid.com/blog/what-is-the-difference-between-2d-and-3d-animation/	

Course Code	Course Title	Credits 04
ME603	Match moving with Live Action	Marks : 100
Objective	Understanding Tracking objectives Read and understand the user and technical specifications of equipment and software. Gather and watch raw footage/material. Gather references of work-products and productions that could provide ideas and help conceptualise possibilities for post- production	
Outcomes	Match moving is primarily used to track the movement of a camera through a shot so that an identical virtual camera move can be reproduced in a 3D animation program.	
Unit I	Understanding Tracking objectives, which could include Tracing live action images for Animation Creating cameras for software	(15 Hours)
Unit II	Matchmoving -Uses and advantages of matchmoving, Creating cameras footage movement, Final inspection,	(15 Hours)
Unit III	Point Clouds: Creating track points, point Clouds	(15 Hours)
Unit IV	Tracking: Motion tracking, Motion stabilization, Camera tracking . Problems faced during tracking.	(15 Hours)
Suggested Books:		
Readings	1. Uses of tracking and camera movement. By Tim Dobbert · 2012 2. Computer Vision for Visual Effects By Richard J. Radke · 2013 3. The Art and Technique of Matchmoving Solutions for the VFX Artist By Erica Hornung · 2013 Weblink: • https://www.google.co.in/books/edition/The_Art_and_Technique_of_Matchmoving/uC5VNbaApgwC?hl=en&gbpv=0 • https://www.youtube.com/watch?v=OWSedr3aXgI • https://en.wikipedia.org/wiki/Match_moving • https://www.screenskills.com/job-profiles/browse/visual-effects-vfx/computer-generated/matchmove-artist/ • https://fxiationdigitals.com/vfx-animation-blog/an-easy-guide-to-matchmove-and-tracking/	

Skill Courses:

Course Code	Course Title	Credits 04
ME604	Final Editing in VFX	Marks : 100
Objective	Learning advanced techniques for compositing and visual effects development; including CGI elements, camera match moving, multi-pass rendering and digital compositing.	
Outcomes	Video editors work with all the different takes, cut the unwanted parts, and organize them into the flow that you have established. The primary goal of editing is to make the video as smooth and organized as possible, and the editor works with the director, producer, and others, to create that flow.	
Unit I	(15 Hours) Procedures: Keying, Rotoscopy, Tracking And Stabilizing–Parenting –Masking – Alpha – Parallax –Color Correction –Adding Text –Render And Export.	
Unit II	(15 Hours) Introduction to color correction tools with sin city FX example, Day to Night (extract luma matte), mountain Lava FX, Use of Deep pixel tools using channel Boolean and openxr file, Benefit of Macros, one point, two point and four point tracking, Stabilize shot, Extend the tracking information.	
Unit III	(15 Hours) Compose 3d render passes, tools to remove chroma, Basic chroma remove, Garbage masking for keying, chroma remove in grainy footage, Part by part chroma remove, create macro design according your pipeline	
Unit IV	(15 Hours) Tracking: Motion tracking, Motion stabilization, Camera tracking . Problems faced during tracking.	
Suggested Readings	Books: • PRINCIPLES OF MULTIMEDIA – Ranjan Parekh, 2007, TMH. (Unit I, Unit V) • Multimedia Technologies – Ashok Banerji, Ananda Mohan Ghosh – McGraw Hill Weblink : • https://www.viostream.com/blog/importance-of-video-editing • https://www.viostream.com/blog/what-is-video-marketing • https://www.viostream.com/blog/pre-recorded-vs-live-video • https://www.viostream.com/blog/what-is-a-video-transcription	

Course Code	Course Title	Credits 04
ME605	Game Designing	Marks : 100
Objective	Uses a project based curriculum that teaches programming skills, animation, and • game design, using Adobe Flash • Exploring different character animation technique. • To enable students to manage Animation Projects from its Conceptual Stage to the final product creation.	
Outcomes	Game Design Program Learning Outcomes. Who designs the gameplay for the next blockbuster title? Who builds the worlds and challenges that keep players intrigued? Who develops the characters and narratives that will keep players emotionally invested until the very end.	
Unit I	(15 Hours) Basic Animation, Introduction to The Game, Photoshop & Flash, Game Analysis Centipede, Game Scripting & Coding, Game Programming Language, Source Code Program, Game & Graphic Code	
Unit II	(15 Hours) Game Visualization, Game Idea: Visualization & Story Telling, Game Analysis: Tetris, The essence of Game 1, Game Analysis: Loom, Essence of Game 2, Game Development & Documentation, Game Design Documents, Character Designing, Flash Based Game Designing	
Unit III	(15 Hours) Character Make, Modeling, Texturing & Lighting Games, Game Lord, Rigging & Animation for Games, FX For Games, Game Analysis: The Sims, Sound for Games	
Unit IV	(15 Hours) Game Planning, Theft Auto III, Game Interface Designing, Rigging & Animation for Games, FX For Games, Game Analysis: The Sims, Sound for Games, Projects, Portfolio	
Suggested Readings	Books: 1. Timing for Animation by John Halas., The Animator's Survival Kit by Richard E. Williams 2. Designing Games A Guide to Engineering Experiences By Tynan Sylvester · 2013 3. Practical Game Design Learn the Art of Game Design Through Applicable Skills and Cutting-edge Insights By Adam Kamares, Ennio De Nucci · 2018 4. Elements of Game Design By Robert Zubek · 2020, Publisher:-MIT Press Weblink: • https://en.wikipedia.org/wiki/Game_design • https://www.gamedesigning.org/ • https://www.youtube.com/watch?v=PMXf0e8n2Oc • https://www.internationalstudent.com/study-game-design/what-is-game-design/ • https://unity.com/how-to/beginner/10-game-design-tips-new-developers • https://www.shiksha.com/it-software/game-design-chp • https://www.nuclino.com/solutions/game-design-software • https://www.artinstitutes.edu/about/blog/aig-3-game-design-software-tools-you-can-use-to-make-your-own-games	

Course Code	Course Title	Credits 04
ME606	VFX Project	Marks : 100
Objective	Learning advanced techniques and Will gain the knowledge of handling a complete compositing tools	
Outcomes	Thereby it helps in eliminating dangers like risky stunts, explosions, crashes etc which not only creates a high-quality level of final results but also gives higher opportunities for filmmakers and artist to expand their visual creativity level. Another important advantage of VFX studios is about controlling factor.	
Unit I	One Demo reel Including multiple Shots	(60 Hours)

Practical Skill Courses:

Course Code	Course Title	Credits 02
ME607	LAB1: Roto and Stereo Paint	Marks : 50
	Programming Lab based on I.T(Roto and Stereo Paint)	(30 Hours)

Course Code	Course Title	Credits 02
ME608	LAB2: 2D and 3D Compositing	Marks : 50
	Programming Lab based of 2D and 3D Compositing	(30 Hours)

Course Code	Course Title	Credits 02
ME609	LAB3: PRACTICAL on Moving	Marks : 50
	Match moving with Live Action	(30 Hours)

[Signature]
19/10/2022

[Signature]
19/10/22

[Signature]
20/10/2022

[Signature]
Principal
Janvikas Mahavidyalaya,
Bansarola, Tq. Kail, Dist. Beed