2.6.1

Bachelor of Science (Animation) (B.Sc. (Animation)) Program Outcome (PO):

a) To familiarize the students with various approaches, methods and techniques of Animation Technology.
b) To develop competencies and skills needed for becoming an effective animator.
c) Mastering traditional & digital tools to produce stills and moving images.
d) Exploring different approaches in computer animation.
e) To enable students to manage Animation Projects from its Conceptual Stage to the final product creation.
f) To train students in applying laws of human motion and psychology in 2-D or 3-D characters.
g) To develop expertise in life-drawing and related techniques.
h) To apply Audio and Video Production Techniques to an Animation Project.

Bachelor of Science (Animation) (B.Sc. (Animation)) Course Outcome (CO)

1. **F.Y. B. Sc. Animation:**
   A. Elements of Information Technology (AN-1101)
      i. To understand Characteristics, Evolution, and various Generations of Computers.
      ii. To understand basic Computer Organization.
      iii. To understand the Number Systems.
      iv. Learn about Processor and Memory and its uses.
      v. Learn about Secondary Storage Devices and their uses.
      vi. Introduction to Input-Output Devices.
      vii. Introduction to Computer Programs and Languages.
      viii. To understand various Operation Systems.
      ix. To provide knowledge about Data Communication and Computer Networks.
      x. To understand the Internet.
      xi. To understand the Classification of Computers.

   B. Introduction to Programming Language (AN-1102)
      i. To understand programming language C.
      ii. To understand programming language C++.
      iii. To understand basics of OOP.
      iv. To understand be able to write programs using C, C++ and OOPs concepts.

   C. Basics of Animation (AN-1103)
      i. To understand drawing as the most powerful visual representation.
      ii. To make hands free.
      iii. Learn to create simple objects.

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    iv.   Learn to create Perspective Drawings.

    v.   Learn to create Lights and Shades.

    vi.   Learn to create cartoons drawing.

D. Foundation Art (AN-1104)
   i.   To understand drawing as the most powerful visual representation.
   ii. To make hands free.
   iii. Learn to create simple objects.
   iv. Learn to create Perspective Drawings.
   v.   Learn to create Lights and Shades.
   vi. Learn to create cartoons drawing.

E. Computer Based 2D Animation (AN-1105)
   i.   The most important use of flash is to create an animated character.
   ii. To use for rich internet application, desktop application, mobile games.
   iii. Flash animation use for various purposes like entertainment , education and presentation.

F. Introduction to Graphics (AN-1106)
   i.   To understand digital graphics software like Photoshop and Illustrator.
   ii. To understand the basics of Graphic Industry.
   iii. To be able to create graphics designs to be used by the industry.

G. Elements of 3D Design (AN-1107)
   i.   The 3D representation of objects can provide different levels of complexity.
   ii. 3D models used for other purpose, such as interior, product design.
   iii. It's used in various industries like film, animation, automobile, gaming.

H. Introduction to Mass Communication and Media Literacy (AN-1108)
   i.   Mass communication help to exchanging information through mass media to large segments of the population.
   ii. Media literacy provides you with a framework to access, analyze, evaluate and even create your own massage in variety of forms.
   iii. Its help to build an understanding of the role of media in our society.

2. **S.Y. B. Sc. Animation:**
   A. Value Education - I (AN-2101)
      i.   To understand the meaning of values and different kinds of values
      ii. To inculcate knowledge of values through education
      iii. To help students to be a true human being who are able to face life and make it meaningful and happy.
      iv. To improve person's sense of right and wrong or "ought" to be.

    v.   To understand how values tend to influence attitudes and behavior and help to solve common human problems.

    vi.   To help relate values to the norms of a culture.

B. Value Education - II (AN-2102)

    i.   Students are encouraged to follow soft skills as self assessment, self awareness and building self confidence.

    ii.   To enhance communication skill and encouraged leadership qualities.

    iii.   To develop interpersonal and non verbal communication techniques.

    iv.   To enhance the effective written communication skills.

    v.   To encourage students to learn ethics and etiquettes

C. 3D Production (Autodesk Maya) (AN-2102)

    i.   To understand advance modules of 3D Animation.

    ii.   To understand the concepts of 3D Modeling, Lighting, Texturing, Rigging, Animation, Hair and Fur, Dynamics and Rendering.

    iii.   To understand and apply the concepts in production for animated advertisements, films and series.

    iv.   To understand Animatics.

    v.   To understand various Camera Angles, Camera Shots, and Camera Movements in 3D application.

D. 3D Production (Autodesk Mudbox) (AN-2202)

    i.   Mudbox provides an advantage to painting the textures on the objects directly.

    ii.   Its help to improve high end digital sculpting features.

    iii.   Mudbox extremely useful texture painting capability, so that student can improve the modeling and texturing skills.

E. Graphics Art I (AN-2103)

    i.   This course will demonstrate the various tools that assist in formatting text importing images and creating

    ii.   page layouts. By the end of the course the student will be familiarized with In Design from the beginning stages of laying out print documents to learning how to create interactive projects all within one program.

    iii.   At the completion of the course, the Students will be able to:

    iv.   Apply the use of all toolbars in order to create effective Page Design Projects.

    v.   Easily design projects that will include Typographic and Graphic elements together.

F. Introduction to Action Script (AN-2203)

    i.   Flash Action Script is an object oriented programming (OOP) language that is designed

ii.   specifically for media – rich website animation & interactive user interfaces.

iii.   This course is an introduction to Action Script for students who have no programming experience or beginners.

iv.   By the end of the course student will able to create user controlled animation simple games, and

v.   smart web pages that can adapt to the users preferences.

G. Multimedia System (AN-2104)

i.   To understand Multimedia & Multimedia information, convergence of Computers, communication and entertainment Products.

ii.   To understand Digital Audio Representation and Processing.

iii.   To understand Video Technology, Video and Image Compression.

H. Multimedia Communication (AN-2204)

i.   Introduction to Multimedia Communications, Graphics & Image data representation.

ii.   To understand Audio Visual Integration and Standards for multimedia Communication.

iii.   To understand Digital Communication Basics.

I. Animation Techniques I (AN-2105)

i.   To understand different styles of Stop Motion Animation.

ii.   To understand, learn and apply Clay Animation.

iii.   To understand, learn and apply VFX and its techniques.

J. Animation Techniques II (AN-2205)

i.   To understand, learn and apply Particles and Dynamics.

ii.   To understand and apply different Title styles and rendering techniques.

iii.   To understand, learn and apply Cut Out Animation.
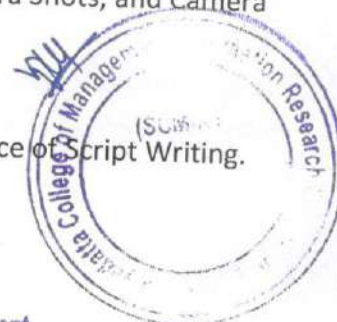
K. Production Process - I (AN-2106)

iv.   To understand the preparation and importance of Script Writing.

v.   To understand the preparation and importance of Exposure Sheet.

vi.   To understand the relevance of Staging.

vii.   Learn Storyboarding.

viii. To understand the process of writing dialogues.

ix.   To understand Animatics.

x.   To understand Layout Designing for Film-Making.

xi.   To understand various Camera Angles, Camera Shots, and Camera Movements.

L. Production Process - II (AN-2206)

i.   To understand the preparation and importance of Script Writing.

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     ii.   To understand the preparation and importance of Exposure Sheet.
     iii.   To understand the relevance of Staging.
     iv.   Learn Storyboarding.
     v.   To understand the process of writing dialogues.
     vi.   To understand Animatics.
     vii.   To understand Layout Designing for Film-Making.
     viii. To understand various Camera Angles, Camera Shots, and Camera Movements.

3. T.Y. B. Sc. Animation:

A. Script Writing (AN-3101)

i. Demonstrate understanding of techniques, principles, genres and elements of script writing for screen and live performance.
ii. Research concepts and process of script writing.
iii. Develop story, characters and dialogue for scripts.
iv. Review, revise and edit scripts.
v. Communicate ideas clearly in scripts.

B. IPR and Cyber Security (AN-3201)

i. Animation is a creative field, and every day new ideas innovations, practices can come up. The students while entering the industry must be fully aware about how to protect their work and also what would be the consequences if things are done in a wrong way, which Intellectual Property Rights provides them with. It gives them an idea about what they should do and what not to do.
ii. The second part of this subject, Cyber Security tries to provide the students fundamental knowledge about information security to take on a career in this challenging and ever changing IT world, where data or information which we create/process/store/transmit is at a risk always.
iii. Both the topics help to create awareness and teach the students about what to protect and how to protect information/systems and our rights.

C. Web Technology (AN-3102)

i. To understand web technologies and the issues involved in web designing.
ii. To understand web page and create an interactive and dynamic web page.
iii. To understand the Server Side Technology.

D. Digital Editing - I (AN-3202)

i. The course covers Students capabilities, Design principles, Prototyping Techniques, Evaluation Techniques and the Implementation of Graphical User Interfaces. Deliverables include short programming assignments

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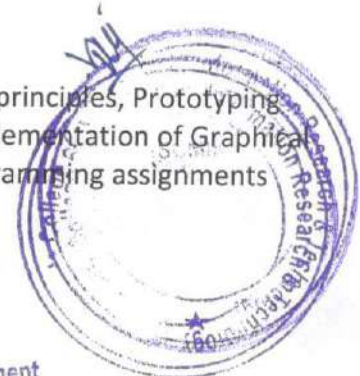
and a semester-long group project. Students taking the graduate version also have readings from current literature and Additional Assignments

E. Game Design (AN-3103)
   i. In this subject student will learn about gaming industry and pipeline for the game production.
   ii. The complete pre production work of any game will be done in this semester. Student will also design their own game concept and will work on it throughout the semester.
   iii. A common 3d platform i.e. Blender is also included here for making 3D content which will be required for the game.

F. Game Production (AN-3203)
   i. In this semester students will learn the game engine Unity.
   ii. Unity is software which is widely used in gaming industry for developing various games.
   iii. We can use this software for creating art as well as developing codes for games.
   iv. Student will also complete their game project which they have started in semester III.
   v. Production & post production of the game will conclude in this semester.

G. Digital Editing (AN-3104)
   i. To understand the study of terminology and concepts.
   ii. Use digital video capture and output methods.
   iii. Utilize appropriate compression schemes for various output
   iv. Integrate and composite still graphics and animation into a production.
   v. Summarize and apply principles of video production.
   vi. Identify the components of a digital video system

H. Motion Graphics (AN-3204)
   i. Employ the terminology of motion graphic design when presenting, critiquing, or discussing motion graphic design ideas and solutions.
   ii. Analyze motion graphics in contemporary and historical contexts.
   iii. Apply graphic design principles to time-based works.
   iv. Produce motion graphics in a range of professionally-recognized forms.
   v. Utilize appropriate content and techniques to tell a story.
   vi. Compile a portfolio of motion graphic design.

I. VFX - I (AN-3105)
   i. To learn the various methods of Visual Special Effects for live action & Animation Films.
   ii. To create Environments which looks realistic with the help of Different techniques used for VFX.

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iii. To know the different tools of VFX which are currently used in industry.

J. **VFX - II (AN-3205)**
   i. Student will learn in this Semester to composing 3d objects in video footage.
   ii. Match Moving process and various methods of Visual Special Effects for live action & Animation Films and to create Environments which looks realistic with the help of Different techniques used for VFX.
   iii. Student will also know the different tools of VFX which are currently used in industry.

K. **Creative Thinking (AN-3106)**
   i. Students will experience the value of using effective creative writing skills to expand and enhance their personal intellectual, emotional, psychological, and artistic lives.
   ii. Students will develop the ability to approach consciously their everyday living, listening, reading, and writing as resources and possibilities for effective writing.
   iii. Students will learn the value of working collaboratively with others to improve their writing. Students will understand the value of developing creative writing skills and taking responsibility for their own learning in order to function most effectively as students and workers

L. **New Media (AN-3206)**
   i. Introduce the notion of globalization and understand how it impacts multilingual and multicultural communication in new media
   ii. Introduce the purpose, nature and language specific to a variety of new media communication in different corporate and professional environment.
   iii. Examine the intersection of new media and professional communication practice to enhance the success of corporate and professional communication and the quality of human life

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