

***Information Brochure and Syllabus
Bachelor's Degree in Animation
Diploma in Animation***

Department of Computer Science
Jodhpur National University

<http://www.jodhpurnationaluniversity.com>

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1. Introduction:

Media and Entertainment is one of the most emerging and fast growing industries in India and the whole world is taking notice of the efficiency, skill and talent available in the country in these fields. To aid further growth of this industry, it is extremely important that formal and professional level training programmes and courses are introduced at University and College levels to create highly skilled and trained professionals for this Industry.

Animation is an important segment in this Industry and this course is being introduced to train people in the fields of animation which is an inherent part of a variety of industries today and find applications in industries even beyond Media and Entertainment.

The data from NASSCOM (Animation & Gaming Report 2007) states that there are approximately 16000 animators in India and majority of these animators are employed gainfully in Mumbai, Chennai, Bangalore, Hyderabad, Pune etc.

The lack of people is badly affecting the animation industry. Most studios have projects lined up for the coming years with tight deadlines to keep as most of these projects are from the international market. This situation has forced the industry to look for animation professionals from international markets and many studios are recruiting foreign hands.

The animation business is sidelining the animation education as even after 15 years of existence in India the field is not understood.

The existing animation education lacks professional training methodologies which are only available at Higher Education levels and comprises of Private training institutes that are cashing the visible boom in the industry. Some of these establishments can only provide ill trained and insecure artists and technicians which will only compound the problem.

A lot needs to be done, at a very fast pace if we have to maintain our competitive edge and deliver content be it films, serials or games. There is a huge market for it as India has yet to discover its appetite for animation, and the world is still hungry for more!

2. Opportunities for professionals in Animation:

Global market :

The global animation market(demand perspective)was estimated at USD 59 billion in 2006.the market is expected to grow at a CAGR of nearly 8 percent over 2006-2010, to reach USD 80 billion by 2010, of the total revenue earned in the segment, approximately 40-45 percent is attributed to the cost of development. consequently the global market for animated content and related service is estimated at USD 25-26 billion and the forecast to cross USD 34 billion by 2010.within animation , the entertainment segment will continue to remain the major contributor, accounting for nearly three-fourth of the total market through the forecast period.

Indian market:

The Indian animation industry revenues were estimated at USD 354 million in 2006, a growth rate of 25 percent over 2005. This industry is forecast to reach USD 869 million by 2010, representing a CAGR of 25 percent over 2006-2010. The entertainment contributes nearly 68 percent of the total animation market in India. The key factors driving the growth are significant cost advantage, a large pool of English speaking manpower, growing maturity of animation studios and development of IP and an attractive domestic market opportunity.

Career Opportunities : After completion of the Degree Program students can get job opportunities in following segments in industry,

- **Media and Entertainment**
 - Animation Studios
 - Post Production Houses (PP)
 - Broadcast Houses
 - Game Studios (Game Art)
 - Visual Effects (VFX) for Films and Television
 - Advertisement Industry

- **Design Visualization**

- Architectural /Interior/Landscape Designing
- Product Designing/Mechanical Visualization/ Industrial designing
- Medical Visualization
- Set Designing/Exhibition Designing
- Apparel/ Fashion Designing
- E-learning/CBT Designing
- Web Designing
- Graphic Design

3. Course Description:

The following courses will be provided at the University campuses in Jodhpur and Jaipur

1. 3 Yrs Degree (BCA) in Computer Animation
2. 1 Year Diploma in Computer Animation

3-Years Bachelor in Computer Animation

EXAMINATION SCHEME FOR SEMESTER 1

Subj. Code	Subject	Hours per week		Hours per semester		External exams		Internal exams		Marks
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
ART 101	Man Made Drawing & Painting (P)	1	5	15	75	-	70	-	30	100
ART 102	Organic Drawing & Painting (P)	1	5	30	90	-	70	-	30	100
ART 103	2D Composition (P)	1	5	15	75	-	70	-	30	100
ART 104	History of Art + Memory Drawing (P)	1	5	60	60	35	35	15	15	100
ART 105	Aesthetics + Color Theory and Practical (P)	1	5	60	60	35	35	15	15	100

EXAMINATION SCHEME FOR SEMESTER 2

Subj. Code	Subject	Hours per week		Hours per semester		External exams		Internal exams		Marks
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
D. ART 201	Graphic Design (P)	1	5	15	75	-	70	-	30	100

D. ART 202	Digital Image Compositing (P)	2	6	30	90	-	70	-	30	100
D. ART 203	Preproduction 1 (Character Design) (P)	1	5	15	75	-	70	-	30	100
D. ART 204	Preproduction 2 (Character Design) (P)	2	6	30	90	-	70	-	30	100
D. ART 205	Editing a Promo (P)	2	6	30	90	-	70	-	30	100

EXAMINATION SCHEME FOR SEMESTER 3

<i>Subj. Code</i>	<i>Subject</i>	<i>Hours per week</i>		<i>Hours per semester</i>		<i>External exams</i>		<i>Internal exams</i>		<i>Marks</i>
		<i>Th</i>	<i>Pr</i>	<i>Th</i>	<i>Pr</i>	<i>Th</i>	<i>Pr</i>	<i>Th</i>	<i>Pr</i>	
MOD 301	Inorganic Modeling (P)	2	6	30	90	-	70	-	30	100
MOD 302	Organic Modeling (P)	2	6	30	90	-	70	-	30	100
MOD 303	Unwrapping and Texturing (P)	2	4	30	60	-	70	-	30	100
LIGH T 304	Theory of Light and Color	4	2	60	30	70	-	30	-	100
LIGH T 305	Light and Color Application (P)	4	4	60	60	-	70	-	30	100

EXAMINATION SCHEME FOR SEMESTER 4

<i>Subj. Code</i>	<i>Subject</i>	<i>Hours per week</i>		<i>Hours per semester</i>		<i>External exams</i>		<i>Internal exams</i>		<i>Marks</i>
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
RIG 401	Rigging (Theory + Mechanical) (P)	1	5	15	75	20	50	10	20	100
RIG 402	Organic Rigging (P)	2	6	30	90	-	70	-	30	100
ANIM 403	Animation Fundamentals (Theory + Practical)	2	4	30	60	20	50	10	20	100
ANIM 404	Body Mechanics (P)	2	6	30	90	-	70	-	30	100
ANIM 405	Acting in Animation (P)	2	6	30	90	-	70	-	30	100

EXAMINATION SCHEME FOR SEMESTER 5

<i>Subj. Code</i>	<i>Subject</i>	<i>Hours per week</i>		<i>Hours per semester</i>		<i>External exams</i>		<i>Internal exams</i>		<i>Marks</i>
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
VFX 501	Theory of Visual Effects	4	4	60	60	70	-	30	-	100
VFX 502	Compositing (P)	2	6	30	90	-	70	-	30	100
VFX 503	3D Effects (P)	2	6	30	90	-	70	-	30	100

PIPE 504	Pipeline Study (P)	3	3	45	45	35	35	15	15	100
OPE 505	Operating Environment (P)	3	3	45	45	35	35	15	15	100

EXAMINATION SCHEME FOR SEMESTER 6

Subj. Code	Subject	Hours per week		Hours per semester		External exams		Internal exams		Marks
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
PM 601	Project Management (P)	1	1	15	15	35	35	15	15	100
GP 602	Short Film (P)	-	34	-	510	-	70	-	30	100

1-Year Diploma in Computer Animation

EXAMINATION SCHEME FOR SEMESTER 1

Subj. Code	Subject	Hours per week		Hours per semester		External exams		Internal exams		Marks
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
ART 101	Art Fundamentals & Storyboarding	2	6	30	90	35	35	15	15	100
I.E. 102	Image Editing (P)	1	4	15	60	-	70	-	30	100
VEC 103	Video Compositing & Editing (P)	2	4	30	60	-	70	-	30	100
BAS 104	Basics of 3D & Project (P)	1	6	15	90	-	70	-	30	100

MOD 105	Modeling (P)	2	8	30	120	-	70	-	30	100
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EXAMINATION SCHEME FOR SEMESTER 2

Subj. Code	Subject	Hours per week		Hours per semester		External exams		Internal exams		Marks
		Th	Pr	Th	Pr	Th	Pr	Th	Pr	
TEX 101	Texturing (P)	2	6	30	90	-	70	-	30	100
LIGHT 102	Lighting (P)	2	6	30	90	-	70	-	30	100
RIG 103	Rigging (P)	1	4	15	60	-	70	-	30	100
ANIM 104	Animation (P)	2	8	30	120	-	70	-	30	100
FX 105	3D Effects and Rendering (P)	1	4	15	60	-	70	-	30	100

4. Eligibility Criteria

Jodhpur National University – Jodhpur

Course	Duration	Seats	Eligibility	Admission criteria
BCA	3 Years	50	10+2	Entrance and Merit
Diploma in Animation	1 Year	50	10+2/ Graduates	Entrance and Merit

Jodhpur National University – Off Campus at Jaipur

Course	Duration	Seats	Eligibility	Admission criteria
BCA Animation	3 Years	50	10+2	Entrance and Merit
Diploma in Animation	1 Year	50	10+2/ Graduates	Entrance and Merit
Part Time Diploma in Animation	2 year	50	Graduates/Postgraduates	Entrance and Merit