

**PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY**  
**FACULTY OF COMPUTING SCIENCES AND APPLICATIONS**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**B.Sc. Animation & Multimedia**  
**CURRICULUM - REGULATIONS 2024**

Category of courses and credit requirements for the B.Sc. Animation & Multimedia as per the new guidelines of UGC are outlined below:

Sl. No.	Category of Courses	Credits	
		3 Years	4 Years
1.	Major (Core)	60	80
2.	Minor Stream	24	32
3.	Multidisciplinary	09	09
4.	Ability Enhancement Courses	08	08
5.	Skill Enhancement Courses	09	09
6.	Value Added Courses	06 - 08	06 - 08
7.	Summer Internship	02 - 04	02 - 04
8.	Research Project / Dissertation	-	12
Total		120	160

**SEMESTER I**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24TA101	பொதுத்தமிழ் (General Tamil)	3	0	0	3
	U24TA102	அடிப்படைத்தமிழ் (Foundational Tamil)				
2	U24EN102	English for Communication - I	3	0	0	3
3	U24MA101	Matrices and Differential Calculus	3	1	0	4
4	U24CO101	Information Technology Essentials	3	1	0	4
5	U24PH103	Physical Science	3	0	0	3
6	U24EM101	Coding Techniques	3	0	0	3
Practical						
7	U24EM102	Coding Techniques Laboratory	0	0	2	1
8	U24EM103	Speech Communication Laboratory	0	0	2	1
Total Credits			18	02	04	22

**SEMESTER II**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24TA151	அறிவியல்தமிழ் (Scientific Tamil)	3	0	0	3
	U24TA152	வளர்தமிழ் (Beginners Tamil)				
2	U24EN152	English for Communication - II	3	0	0	3
3	U24MA152	Vector Calculus	3	1	0	4
4	U24CO151	Scripting Paradigms	3	1	0	4
5	U24EM151	Programming in Practice	3	0	0	3
6	U24VA002	Universal Human Values	2	1	0	3
Practical						
7	U24EM152	Scripting Paradigms Laboratory	0	0	2	1
8	U24CO152	Programming in Practice Laboratory	0	0	2	1
Total Credits			17	03	04	22

**SEMESTER III**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24TA201	கணினித்தமிழ் (Computer Tamil)	3	0	0	3
2	U24EN201	English for Communication - III	3	0	0	3
3	U24AM201	Foundation Art	3	0	0	3
4	U24AM202	Principles of Animation	3	1	0	4
5	U24AM203	Fundamentals of Graphics Algorithms	3	0	0	3
6	U24AM204	Basics of Clay Modeling	3	1	0	4
7	U24AU001	Environmental Studies	2	0	0	2
Practical						
8	U24AM205	Foundation Art Laboratory	0	0	2	1
9	U24AM206	Clay Modeling Laboratory	0	0	2	1
Audit Course						
10	U24AUXXX	Audit Course - I	--	--	--	--
Total Credits			20	02	04	24

**SEMESTER IV**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24TA251	தொழில்நுட்பத்தமிழ் (Technology Tamil)	3	0	0	3
2	U24EN251	English for Communication - IV	3	0	0	3
3	U24AM251	Raster and Vector Graphics	3	0	0	3
4	U24AM252	2D Animation	3	0	0	3
5	U24AM253	Multimedia	3	1	0	4
6	U24AM751	Ancient Indian Innovations in Computer Technology (Open Elective - I)	3	0	0	3
Practical						
7	U24AM254	Raster and Vector Graphics Laboratory	0	0	2	1
8	U24AM255	2D Animation Laboratory	0	0	4	2
9	U24EM256	Internship	0	0	0	2
Audit Course						
10	U24AUXXX	Audit Course - II	--	--	--	--
Total Credits			18	01	06	24

**SEMESTER V**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24AM301	Immersive Technologies	3	0	0	3
2	U24AM302	Script Writing and Story Board Designing	3	0	0	3
3	U24AM303	Audio & Video Editing	3	0	0	3
4	U24AM304	3D Modeling	3	0	0	3
5	U24AM9XX	Programme Elective – I	3	0	0	3
6	U24AM8XX	Online Course	3	0	0	3
7	U24EM301	Community Engagement and Social Responsibility	1	0	2	2
Practical						
8	U24AM305	Immersive Technologies Laboratory	0	0	2	1
9	U24AM306	Audio & Video Editing Laboratory	0	0	2	1
10	U24AM307	3D Modeling Laboratory	0	0	2	1
Total Credits			19	0	08	23

**SEMESTER VI**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24AM351	Fundamentals of Cinematography	3	0	0	3
2	U24AM352	Compositing Techniques	3	0	0	3
3	U24AM353	3D Animation	3	0	0	3
4	U24AM354	UI/UX Design	3	0	0	3
5	U24AM9XX	Programme Elective - II	3	0	0	3
6	U24AM7XX	Open Elective - II	3	0	0	3
Practical						
7	U24AM355	Compositing Techniques Laboratory	0	0	2	1
8	U24AM356	3D Animation Laboratory	0	0	2	1
9	U24AM357	UI/UX Design Laboratory	0	0	2	1
10	U24AM358	Capstone Project	0	0	8	4
Total Credits			18	0	14	25

## SEMESTER VII

### B.Sc. (Honours) Animation & Multimedia

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24AM401	Motion Capturing	3	0	2	4
2	U24AM402	Character Design For Animation	3	0	2	4
3	U24AM403	Game Art and Design	3	0	2	4
4	U24AM404	Rigging, Lighting & Rendering	3	0	2	4
5	U24AM405	Acting For Animators	3	1	0	4
Total Credits			15	1	8	20



## SEMESTER VIII

### B.Sc. (Honours) Animation & Multimedia

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24AM451	Generative AI Models for Animation	3	0	2	4
2	U24AM452	Advanced 3D Animation	3	0	2	4
Practical						
3	U24AM453	Project / Dissertation	0	0	24	12
Total Credits			6	0	28	20

## SEMESTER VII

### B.Sc. (Honours with Research) Animation & Multimedia

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	U24AM401	Motion Capturing	3	0	2	4
2	U24AM402	Character Design For Animation	3	0	2	4
3	U24AM403	Game Art and Design	3	0	2	4
4	U24AM404	IPR and Research Methodology	3	1	0	4
Research Project						
5	U24AM405	Applicative Research	0	0	8	4
Total Credits			12	2	12	20

## **SEMESTER VIII**

### **B.Sc. (Honours with Research) Animation & Multimedia**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>			
			<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	U24AM451	Research / Dissertation (with SCI Publication)	0	0	40	20
Total Credits			0	0	40	20

**Actual Credit allotments as per the guidelines of UGC / TANSCHÉ for the B.Sc Animation & Multimedia are given below:**

Sl. No.	Category of Courses	Credits		
		3 Years	4 Years (Honors)	4 Years (Honours with Research)
1.	Major (Core)	61	81	73
2.	Minor Stream	25	33	33
3.	Multidisciplinary	09	09	09
4.	Ability Enhancement Courses	24	24	24
5.	Skill Enhancement Courses	09	09	09
6.	Value Added Courses (Common for all UG)	08	08	08
7.	Summer Internship	04	04	04
8.	Research Project / Dissertation	0	12	20
<b>Total</b>		<b>140</b>	<b>180</b>	<b>180</b>

**Semester wise Credit distribution (in all categories of courses)**

**B.Sc Animation & Multimedia (3 Years)**

<b>Sl. No.</b>	<b>Category of Courses</b>	<b>Credits</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>
1.	Major (Core)	61	4	5	8	12	14	18
2.	Minor Stream	25	4	4	5	4	4	4
3.	Multidisciplinary	09	3	-	3	-	-	3
4.	Ability Enhancement Courses	24	6	6	6	6	-	-
5.	Skill Enhancement Courses	09	5	4	-	-	-	-
6.	Value Added Courses	08	-	3	2	-	3	-
7.	Summer Internship	04	-	-	-	2	2	-
8.	Research Project / Dissertation	-	-	-	-	-	-	-
<b>Total</b>		<b>140</b>	<b>22</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>25</b>

**Semester wise Credit distribution (in all categories of courses)**

**B.Sc. (Honours) Animation & Multimedia - 4 Years**

<b>Sl. No.</b>	<b>Category of Courses</b>	<b>Credits</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>VIII</b>
1.	Major (Core)	81	4	5	8	12	14	18	12	8
2.	Minor Stream	33	4	4	5	4	4	4	8	-
3.	Multidisciplinary	09	3	-	3	-	-	3	-	-
4.	Ability Enhancement Courses	24	6	6	6	6	-	-	-	-
5.	Skill Enhancement Courses	09	5	4	-	-	-	-	-	-
6.	Value Added Courses	08	-	3	2	-	3	-	-	-
7.	Summer Internship	04	-	-	-	2	2	-	-	-
8.	Research Project / Dissertation	12	-	-	-	-	-	-	-	12
<b>Total</b>		<b>180</b>	<b>22</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>25</b>	<b>20</b>	<b>20</b>

**Semester wise Credit distribution (in all categories of courses)**  
**B.Sc. (Honours with Research) Animation & Multimedia - 4 Years**

Sl. No.	Category of Courses	Credits	I	II	III	IV	V	VI	VII	VIII
1.	Major (Core)	73	4	5	8	12	14	18	12	-
2.	Minor Stream	33	4	4	5	4	4	4	8	-
3.	Multidisciplinary	09	3	-	3	-	-	3	-	-
4.	Ability Enhancement Courses	24	6	6	6	6	-	-	-	-
5.	Skill Enhancement Courses	09	5	4	-	-	-	-	-	-
6.	Value Added Courses	08	-	3	2	-	3	-	-	-
7.	Summer Internship	04	-	-	-	2	2	-	-	-
8.	Research Project / Dissertation	20	-	-	-	-	-	-	-	20
<b>Total</b>		<b>180</b>	<b>22</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>25</b>	<b>20</b>	<b>20</b>

The number of credits (totaling to 180) in each semester is summarized as follows:

Course	I	II	III	IV	V	VI	VII	VIII
B.Sc. Animation & Multimedia	<b>22</b>	<b>22</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>25</b>	<b>20</b>	<b>20</b>

### Suggested List of Courses for Programme Elective – I

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24AM901	Digital FX	3	0	0	3
2	U24AM902	Media Technologies	3	0	0	3
3	U24AM903	Pre Production Process	3	0	0	3
4	U24AM904	Cinematography & Non Linear Editing	3	0	0	3
5	U24AM905	Character & Environment Sketching	3	0	0	3

### Suggested List of Courses for Programme Elective - II

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24AM951	Special FX	3	0	0	3
2	U24AM952	E-Publishing	3	0	0	3
3	U24AM953	Post Production Process	3	0	0	3
4	U24AM954	Sound Engineering	3	0	0	3
5	U24AM955	Miniatures For Low Budget Filming	3	0	0	3



### List of Courses under each Category

#### Major (Core)

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24CO101	Information Technology Essentials	3	1	0	4
2	U24CO151	Scripting Paradigms	3	1	0	4
3	U24EM152	Scripting Paradigms Laboratory	0	0	2	1
4	U24AM201	Foundation Art	3	1	0	3
5	U24AM202	Principles of Animation	3	1	0	4
6	U24AM205	Foundation Art Laboratory	0	0	2	1
7	U24AM252	2D Animation	3	0	0	3
8	U24AM253	Multimedia	3	1	0	4
9	U24AM751	Ancient Indian Innovations in Computer Technology (Open Elective - I)	3	0	0	3
10	U24AM255	2D Animation Laboratory	0	0	4	2
11	U24AM302	Script Writing and Story Board Designing	3	0	0	3
12	U24AM303	Character & Environment Sketching	3	0	0	3
13	U24AM304	3D Modeling	3	0	0	3
14	U24AM9XX	Programme Elective – I	3	0	0	3
15	U24AM306	Character & Environment Sketching Laboratory	0	0	2	1
16	U24AM307	3D Modeling Laboratory	0	0	2	1
17	U24AM351	Fundamentals of Cinematography	3	0	0	3
18	U24AM352	Compositing Techniques	3	0	0	3
19	U24AM353	3D Animation	3	0	0	3
20	U24AM9XX	Programme Elective – II	3	0	0	3

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
21	U24AM355	Compositing Techniques Laboratory	0	0	2	1
22	U24AM356	3D Animation Laboratory	0	0	2	1
23	U24AM358	Capstone Project	0	0	8	4
<b>Total</b>			<b>45</b>	<b>5</b>	<b>24</b>	<b>61</b>
<b>Additional Major (Core) for 4 years B.Sc. (Honours) Animation &amp; Multimedia</b>						
25	U24AM401	Motion Capturing	3	0	2	4
26	U24AM402	Character Design For Animation	3	0	2	4
27	U24AM405	Acting For Animators	3	1	0	4
27	U24AM451	Generative AI Models for Animation	3	0	2	4
29	U24AM452	Advanced 3D Animation	3	0	2	4
<b>Total</b>			<b>15</b>	<b>1</b>	<b>8</b>	<b>20</b>
<b>Additional Major (Core) for 4 years B.Sc. (Honours with Research) Animation &amp; Multimedia</b>						
25	U24AM402	Character Design For Animation	3	0	2	4
26	U24AM404	IPR and Research Methodology	3	1	0	4
27	U24AM405	Applicative Research	0	0	8	4
<b>Total</b>			<b>6</b>	<b>1</b>	<b>10</b>	<b>12</b>

**Minor (Core)**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24MA101	Matrices and Differential Calculus	3	1	0	4
2	U24MA152	Vector Calculus	3	1	0	4
3	U24AM204	Basics of Clay Modeling	3	1	0	4
4	U24AM206	Clay Modeling Laboratory	0	0	2	1
5	U24AM251	Raster and Vector Graphics	3	0	0	3
6	U24AM254	Raster and Vector Graphics Laboratory	0	0	2	1
7	U24AM301	Immersive Technologies	3	0	0	3
9	U24AM305	Immersive Technologies Laboratory	0	0	2	1
10	U24AM354	UI/UX Design	3	0	0	3
11	U24AM357	UI/UX Design Laboratory	0	0	2	1
<b>Total</b>			<b>18</b>	<b>3</b>	<b>8</b>	<b>25</b>
<b>Additional Minor (Core) for 4 years B.Sc. (Honours) Animation &amp; Multimedia</b>						
9	U24AM403	Game Art and Design	3	0	2	4
10	U24AM404	Rigging, Lighting & Rendering	3	0	2	4
<b>Total</b>			<b>6</b>	<b>0</b>	<b>4</b>	<b>8</b>
<b>Additional Minor (Core) for 4 years B.Sc. (Honours with Research) Animation &amp; Multimedia</b>						
9	U24AM401	Motion Capturing	3	0	2	4
10	U24AM403	Game Art and Design	3	0	2	4
<b>Total</b>			<b>6</b>	<b>0</b>	<b>4</b>	<b>8</b>

### Multidisciplinary

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24PH103	Physical Science	3	0	0	3
2	U24AM203	Fundamentals of Graphics Algorithms	3	0	0	3
3	U24AM7XX	Open Elective - II	3	0	0	3
Total			9	0	0	9

### Ability Enhancement Courses

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24TA101	பொதுத்தமிழ் (General Tamil)	3	0	0	3
	U24TA102	அடிப்படைத்தமிழ் (Foundational Tamil)				
2	U24EN101	English for Communication - I	3	0	0	3
3	U24TA151	அறிவியல்தமிழ் (Scientific Tamil)	3	0	0	3
	U24TA152	வளர்தமிழ் (Beginners Tamil)				
4	U24EN152	English for Communication - II	3	0	0	3
5	U24TA201	கணினித்தமிழ் (Computer Tamil)	3	0	0	3
6	U24EN201	English for Communication - III	3	0	0	3
7	U24TA251	தொழில்நுட்பத்தமிழ் (Technology Tamil)	3	0	0	3
8	U24EN251	English for Communication - IV	3	0	0	3
Total			24	0	0	24

**Skill Enhancement Courses**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24EM101	Coding Techniques	3	0	0	3
2	U24EM102	Coding Techniques Laboratory	0	0	2	1
3	U24EM103	Speech Communication Laboratory	0	0	2	1
4	U24EM151	Programming in Practice	3	0	0	3
5	U24EM152	Programming in Practice Laboratory	0	0	2	1
<b>Total</b>			<b>6</b>	<b>0</b>	<b>6</b>	<b>9</b>

**Value Added Courses**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24VA001	Environmental Studies	2	0	0	2
2	U24VA002	Universal Human Values	3	0	0	3
3	U24AM8XX	Online Course	3	0	0	3
<b>Total</b>			<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>

**Internship**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24EM256	Internship	0	0	0	2
2	U24EM301	Community Engagement and Social Responsibility	1	0	2	2
<b>Total</b>			<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>

**Research Project / Dissertation (Honors)**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24AM453	Project / Dissertation	0	0	24	12
Total			0	0	24	12

**Research Project / Dissertation (Honors with Research)**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24AM451	Project / Dissertation	0	0	40	20
Total			0	0	40	20

**Audit Course**

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	U24AUXXX	Audit Course - I	--	--	--	--
2	U24AUXXX	Audit Course - II	--	--	--	--
Total			--	--	--	--