PRESIDENCY UNIVERSITY

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PROGRAMME REGULATIONS & CURRICULUM

2024-27

PRESIDENCY SCHOOL OF DESIGN

B.SC. MULTIMEDIA

PRESIDENCY UNIVERSITY

Presidency University Act, 2013 of the Karnataka Act No. 41 of 2013 | Established under Section 2(f) of UGC Act, 1956
Approved by AICTE, New Delhi

PRESIDENCY SCHOOL OF DESIGN

Program Regulations and Curriculum
2024-2027

Program: B.Sc. Multimedia

Based on Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

(As amended up to the 21st Meeting of the Academic Council held on 6th September 2023. This document supersedes all previous guidelines)

Regulations No.: PU/AC21.21/SOD08/BSM/2022-25

Resolution No. 21 of the 21st Meeting of the Academic Council held on 6th September 2023 and ratified by the Board of Management in its 22nd Meeting held on 2nd November 2023

September -2023

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PART A – PROGRAM REGULATIONS

1. Vision & Mission of the University and the School / Department

1.1 Vision of the University

To be a Value-Driven Global University, excelling beyond peers and creating professionals of integrity and character, having concern and care for society.

1.2 Mission of the University

- Commit to be an innovative and inclusive institution by seeking excellence in teaching, research and knowledge-transfer.
- Pursue Research and Development and its dissemination to the community, at large.
- Create, sustain and apply learning in an interdisciplinary environment with consideration for ethical, ecological and economic aspects of nation building.
- Provide knowledge-based technological support and services to the industry in its growth and development.
- To impart globally-applicable skill-sets to students through flexible course offerings and support industry's requirement and inculcate a spirit of new-venture creation.

1.3 Vision of Presidency School of Design

To become a value-based, Innovation-driven School of Design, transforming students into visionary designers, who shape the world with creative and socially sustainable solutions.

1.4 Mission of Presidency School of Design

- Inspire and train students to be creative Thinkers and Designers.
- Empower students with design knowledge to address social, technical and economic challenges with innovative solutions.
- Sensitize students to embrace lifelong learning in a technology-enabled environment.
- Foster strategic alliances between Society and Academia for Research and its practical application.
- Instill Entrepreneurial and Leadership Skills to address social, environmental and community - needs.

2. Preamble to the Program Regulations and Curriculum

a) This is the subset of Academic Regulations and it is to be followed as a requirement for the award of **B.Sc-Multimedia** degree.

b) The Curriculum is designed to take into the factors listed in the Choice Based Credit System (CBCS) with focus on Social Project Based Learning, Industrial Training, and Internship to enable the students to become eligible and fully equipped for employment in industries, choose higher studies or entrepreneurship.
c) In exercise of the powers conferred by and in discharge of duties assigned under the relevant provision(s) of the Act, Statutes and Academic Regulations, 2025 of the University, the Academic Council hereby makes the following Regulations.

3. Short Title and Applicability

a) These Regulations shall be called the Bachelor of Science in Multimedia Degree Program Regulations and Curriculum.
b) These Regulations are subject to, and pursuant to the Academic Regulations.
c) These Regulations shall be applicable to the ongoing Bachelor of Science in Multimedia Degree Programs of the 2024-2027 batch, and to all other Bachelor of Science in Multimedia Degree Programs which may be introduced in future.
d) These Regulations shall supersede all the earlier Bachelor of Science in Multimedia Degree Program Regulations and Curriculum, along with all the amendments thereto.
e) These Regulations shall come into force from the Academic Year.

4. Definitions

In these Regulations, unless the context otherwise requires:

a. "Academic Calendar" means the schedule of academic and miscellaneous events as approved by the Vice Chancellor;
b. "Academic Council" means the Academic Council of the University;
c. "Academic Regulations" means the Academic Regulations, of the University;
d. "Academic Term" means a Semester or Summer Term;
e. "Act" means the Presidency University Act, 2013;
f. "AICTE" means All India Council for Technical Education;
g. "Basket" means a group of courses bundled together based on the nature/type of the course;
h. "BOE" means the Board of Examinations of the University;
i. "BOG" means the Board of Governors of the University;
j. "BOM" means the Board of Management of the University;
k. "BOS" means the Board of Studies of a particular Department/Program of Study of the University;

l. “CGPA” means Cumulative Grade Point Average as defined in the Academic Regulations;

m. “Clause” means the duly numbered Clause, with Sub-Clauses included, if any, of these Regulations;

n. “COE” means the Controller of Examinations of the University;

o. “Course In Charge” means the teacher/faculty member responsible for developing and organising the delivery of the Course;

p. “Course Instructor” means the teacher/faculty member responsible for teaching and evaluation of a Course;

q. “Course” means a specific subject usually identified by its Course-code and Course-title, with specified credits and syllabus/course-description, a set of references, taught by some teacher(s)/course-instructor(s) to a specific class (group of students) during a specific Academic Term;

r. “Curriculum Structure” means the Curriculum governing a specific Degree Program offered by the University, and, includes the set of Baskets of Courses along with minimum credit requirements to be earned under each basket for a degree/degree with specialization/minor/honours in addition to the relevant details of the Courses and Course catalogues (which describes the Course content and other important information about the Course). Any specific requirements for a particular program may be brought into the Curriculum structure of the specific program and relevant approvals should be taken from the BOS and Academic Council at that time.

s. “DAC” means the Departmental Academic Committee of a concerned Department/Program of Study of the University;

t. “Dean” means the Dean / Director of the concerned School;

u. “Degree Program” includes all Degree Programs;

v. “Department” means the Department offering the degree Program(s) / Course(s) / School offering the concerned Degree Programs / other Administrative Offices;

w. “Discipline” means specialization or branch of B.Sc. - Multimedia Degree Program;

x. “HOD” means the Head of the concerned Department;

y. “Specialization Incharge” means the person who is responsible for each specialization;

z. “L-T-P-C” means Lecture-Tutorial-Practical-Credit – refers to the teaching – learning

periods and the credit associated;

aa. “MOOC” means Massive Open Online Courses;

bb. “MOU” means the Memorandum of Understanding;

cc. “NPTEL” means National Program on Technology Enhanced Learning;

dd. “Parent Department” means the department that offers the Degree Program that a student undergoes;

ee. “Program Head” means the administrative head of a particular Degree Program/s;

ff. “Program Regulations” means the Bachelor of Science - Multimedia Degree Program Regulations and Curriculum;

gg. “Program” means the Bachelor of Science - Multimedia (B.Sc.) Degree Program;

hh. “PSOD” means the Presidency School of Design;

ii. “Registrar” means the Registrar of the University;

jj. “School” means a constituent institution of the University established for monitoring, supervising and guiding, teaching, training and research activities in broadly related fields of studies;

kk. “Section” means the duly numbered Section, with Clauses included in that Section, of these Regulations;

ll. “SGPA” means the Semester Grade Point Average as defined in the Academic Regulations;

mm. “Statutes” means the Statutes of Presidency University;

nn. “Sub-Clause” means the duly numbered Sub-Clause of these Program Regulations;

oo. “Summer Term” means an additional Academic Term conducted during the summer break (typically in June-July) for a duration of about eight (08) calendar weeks, with a minimum of thirty (30) University teaching days;

pp. “SWAYAM” means Study Webs of Active Learning for Young Aspiring Minds.

qq. “UGC” means University Grant Commission;

rr. “University” means Presidency University, Bengaluru; and

ss. “Vice Chancellor” means the Vice Chancellor of the University.

5. Program Description

The Bachelor of Science in Multimedia Program Regulations and Curriculum are subject to, and, pursuant to the Academic Regulations. These Program Regulations shall be applicable to the ongoing Bachelor of Science in Multimedia (B.Sc. - Multimedia) Degree Program of offered by the Presidency School of Design (SOD).

5.1 These Program Regulations shall be applicable to other similar programs, which may be introduced in future.

5.2 These Regulations may evolve and get amended or modified or changed through appropriate approvals from the Academic Council, from time to time, and shall be binding on all concerned.

5.3 The effect of periodic amendments or changes in the Program Regulations, on the students admitted in earlier years, shall be dealt with appropriately and carefully, so as to ensure that those students are not subjected to any unfair situation whatsoever, although they are required to conform to these revised Program Regulations, without any undue favour or considerations

6. Minimum and Maximum Duration

6.1 Bachelor of Bachelor of Science in Multimedia is a Three-Year, Full-Time Semester based program. The minimum duration of the B.Sc-Multimedia . Program is three (03) years and each year comprises of two academic Semesters (Odd and Even Semesters) and hence the duration of the B.Sc. Multimedia program is six (06) Semesters.

6.2 A student who for whatever reason is not able to complete the Program within the normal period or the minimum duration (number of years) prescribed for the Program, may be allowed a period of two years beyond the normal period to complete the mandatory minimum credits requirement as prescribed by the concerned Program Regulations and Curriculum. In general, the permissible maximum duration (number of years) for completion of Program is 'N' + 2 years, where 'N' stands for the normal or minimum duration (number of years) for completion of the concerned Program as prescribed by the concerned Program Regulations and Curriculum.

6.3 The time taken by the student to improve Grades/CGPA, and in case of temporary withdrawal/re-joining (Refer to Clause **Error! Reference source not found.** of Academic Regulations), shall be counted in the permissible maximum duration for completion of a Program.

6.4 In exceptional circumstances, such as temporary withdrawal for medical exigencies, where there is a prolonged hospitalization and/or treatment, as certified through hospital/medical records, female students requiring extended maternity break (certified by registered medical practitioner), and, outstanding sportspersons representing the University/State/India requiring extended time to participate in National/International sports events, a further extension of one (01) year may be granted on the approval of the Academic Council.

6.5 The enrolment of the student who fails to complete the mandatory requirements for the award of the concerned Degree (refer Section 19.**Error! Reference source not found.** of Academic Regulations) in the prescribed maximum duration (Sub-Clauses 18.1 and 18.2 of Academic Regulations), shall stand terminated and no Degree shall be awarded.

7 Programme Educational Objectives (PEO)

After three years of successful completion of the program, the graduates shall be able to:

PEO 1: Become a professional in the areas of animation and multimedia.

PEO 2: Become a researcher in the area of creative design thinking and its related applications.

PEO 3: Become an Entrepreneur/Consultant/Multimedia Designer.

8. Programme Outcomes (PO) and Programme Specific Outcomes (PSO)

8.1 Programme Outcomes (PO)

PO 1 - Apply fundamental knowledge of elements and principles of design.

PO 2 - Practice multidisciplinary design approach working in teams/groups.

PO 3 - Design processes and systems in multimedia related fields using design thinking aspects.

PO 4 - Identify and solve design-related problems/challenges.

PO 5 - Evaluate the impact of design solutions at varying levels of systems and contexts.

PO 6 - Design a system, program, component, or process to meet desired needs within realistic constraints.

PO 7 - Recognize the need for and an ability to engage in design practices.

PO 8 - Identify contemporary design issues in multimedia-related areas.

PO 9 - Apply the design and management principles to execute multidisciplinary projects.

PO 10 - Apply the techniques, skills and modern design tools necessary for multimedia design practice.

PO 11 - Demonstrate professional and ethical responsibility in design functions.

PO 12 - Interpret and communicate design ideas effectively.

8.2 Programme Specific Outcomes (PSO)

On successful completion of the Program, the students shall be able to:

1. Identify, evaluate and apply techniques and tools of multimedia
2. Demonstrate ideation, conceptualization and production skills in multimedia design solutions
3. Apply creative skills to develop concepts, interfaces and interactive platforms and design programs in multimedia

9. **Admission Criteria (As per statutory body)**

The University admissions shall be open to all persons irrespective of caste, class, creed, gender or nation. The admission criteria to the B.Sc.- Multimedia Program is listed in the following Sub-Clauses:

a. An applicant who has successfully completed Pre-University course or Senior Secondary School course (+2) or equivalent such as (11+1), 'A' level in Senior School Leaving Certificate Course with a minimum aggregate of 40% marks, from a recognized university of India or outside or from Senior Secondary Board or equivalent, constituted or recognized by the Union or by the State Government of that Country for the purpose of issue of qualifying certificate on successful completion of the course, may apply for and be admitted into the Program.
b. Reservation for the SC / ST and other backward classes shall be made in accordance with the directives issued by the Government of Karnataka from time to time.
c. Admissions are offered to Foreign Nationals and Indians living abroad in accordance with the rules applicable for such admission, issued from time to time, by the Government of India.
d. Candidates must fulfil the medical standards required for admission as prescribed by the University.
e. If, at any time after admission, it is found that a candidate had not in fact fulfilled all the requirements stipulated in the offer of admission, in any form whatsoever, including possible misinformation and any other falsification, the Registrar shall report the matter to the Board of Management (BOM), recommending revoking the admission of the candidate.
f. The decision of the BOM regarding the admissions is final and binding.

10. Transfer of student(s) from another recognized University to the 2nd year

(3rd Semester) of the Program of the University

A student who has completed the 1st Year (i.e., passed in all the Courses / Subjects prescribed for the 1st Year) of the B.Sc- Multimedia Three-Year Degree Program from another recognized University, may be permitted to transfer to the 2nd Year (3rd Semester) of the B.Sc- Multimedia Program of the University as per the rules and guidelines prescribed in the following Sub-Clauses:

10.1 The concerned student fulfils the criteria specified in Sub-Clauses 2.3.1, 2.3.2 and 2.3.3.

10.2 The student shall submit the Application for Transfer along with a non-refundable Application Fee (as prescribed by the University from time to time) to the University no later than July 10 of the concerned year for admission to the 2nd Year (3rd Semester) B.Sc-Multimedia Program commencing on August 1 on the year concerned.

10.3 The student shall submit copies of the respective Marks Cards / Grade Sheets / Certificates along with the Application for Transfer.

10.4 The transfer may be provided on the condition that the Courses and Credits completed by the concerned student in the 1st Year of the B.Sc.- Multimedia Degree Program from the concerned University, are declared equivalent and acceptable by the Equivalence Committee constituted by the Vice Chancellor for this purpose. Further, the Equivalence Committee may also prescribe the Courses and Credits the concerned students shall have to mandatorily complete, if admitted to the 2nd Year of the B.Sc.- Multimedia Program of the University.

10.5 The Branch / Discipline allotted to the student concerned shall be the decision of the University and binding on the student.

11. Change of Program

A student admitted to a particular Program of the B.Sc.- Multimedia

Program will normally continue studying in that Program till the completionof the program. However, the University reserves the right to provide the option for a change of Program, or not to provide the option for a change of Program at the end of 1st semester of the degree to eligible students in accordance with the rules framed by the University from time to time.

11.1 Normally, only those students, who have passed all the Courses prescribed for the 1st Semester of the degree Program and obtained a CGPA of not less than 6.00 at the end of the first Semester, shall be eligible for consideration of a change of program.

11.2 Change of Program, if provided, shall be made effective from the commencement of the 2nd Semester of the Degree Program. There shall be no provision for change of Program thereafter under any circumstances whatsoever.

11.3 The student(s) provided with the change of program shall fully adhere to and comply with the Program Regulationsand Curriculum of the concerned Program, the Fee Policy pertaining to that Program, and, all otherrules pertaining to the changed Program existing at the time.

11.4 Change of program once made shall be final and binding on the student. No student shall be permitted, under any circumstances, to refuse the change of program offered.

11.5 The eligible student may be allowed a change in Program, strictly in order of inter se merit, subject to the conditions given below:

11.5.1 The actual number of students in the first semester in any particular program to which the transfer is to be made, should not exceed the sanctioned strength by more than 5%, and,

11.5.2 The actual number of students in any program from which transfer is being sought does not fall below 75% of the total sanctioned intake.

11.5.3 The process of change of program shall be completed on the first day of Registration for the 2nd Semester.

12 Specific Regulations regarding Assessment and Evaluation (including the Assessment Details of NTCC Courses, Weightages of Continuous Assessment and End Term Examination for various Course Categories)

12.1 The academic performance evaluation of a student in a Course shall be according to the University Letter Grading System based on the class performance distribution in the Course.

12.2 Academic performance evaluation of every registered student in every Course registered by the student is carried out through various components of Assessments spread across the Semester. The nature of components of Continuous Assessments and the weightage given to each component of Continuous Assessments (refer Clause 12.5 of academic regulations) shall be clearly defined in the Course Plan for every Course, and approved by the DAC.

12.3 Format of the End-Term examination shall be specified in the Course Plan.

12.4 Grading is the process of rewarding the students for their overall performance in each Course. The University follows the system of Relative Grading with statistical approach to classify the students based on the relative performance of the students registered in the concerned Course except in the following cases:

- Non-Teaching Credit Courses (NTCC)
- Courses with a class strength less than 30

Absolute grading method may be adopted, where necessary with prior approval of concerned DAC.

Grading shall be done at the end of the Academic Term by considering the aggregate performance of the student in all components of Assessments prescribed for the Course. Letter Grades (Clause **Error! Reference source not found.** of academic regulations) shall be awarded to a student based on her/his overall performance relative to the class performance distribution in the concerned Course. These Letter Grades not only indicate a qualitative assessment of the student's performance but also carry a quantitative (numeric) equivalent called the Grade Point.

12.5 Assessment Components and Weightage

Table 1: Assessment Components and Weightage for different category of Courses		
Nature of Course and Structure	**Evaluation Component**	**Weightage**
Lecture-based Course L component in the L-T-P-C Structure is predominant (more than 1) (Examples 2-0-0-2, 3-0-0-3, etc.) Except 1-0-0-1 which has a Jury Component	Continuous Assessments	50%
	End Term Examination	50%
Lab/Practice-based Course P component in the L-T-P-C Structure is predominant (Examples: 2-0-4-4, 1-0-4-3, 2-0-2-3, 0-0-4-2 Etc.)	Continuous Assessments	100%
Skill based Courses like Internship, Dissertation / Social Engagement and such similar Non-Teaching Credit Courses, where the pedagogy does not lend itself to a typical L-T-P-C structure	Guidelines for the assessment components for the various types of Courses, with recommended weightages, shall be specified in the concerned Program Regulations and Curriculum / Course Plans, as applicable.	

The exact weightages of Evaluation Components shall be clearly specified in the concerned PRC and respective Course Plan.

Normally, for Practice/Skill based Courses, without a defined credit structure (L–T–P) [NTCC], but with assigned Credits (as defined in Clause **Error! Reference source not found.** of the Academic Regulations, 2025), the method of evaluation shall be based only on Continuous Assessments. The various components of Continuous Assessments, the distribution of weightage among such components, and the method of evaluation/assessment, shall be as decided and indicated in the Course Plan/PRC. The same shall be approved by the respective DAC.

12.6 Minimum Performance Criteria:

13.3.9 Theory only Course

A student shall satisfy the following minimum performance criteria to be eligible to earn the credits towards the concerned Course:

a. A student must obtain a minimum of 30% of the total marks/weightage assigned to the End Term Examinations in the concerned Course.

b. The student must obtain a minimum of 40% of the AGGREGATE of the marks/weightage of the components of Continuous Assessments, Mid Term Examinations and End Term Examinations in the concerned Course.

13.3.9 Integrated/Lab/Practice/Project Based Courses

The student must obtain a minimum of 40% of the AGGREGATE of the marks/weightage of all assessment components in the concerned Course.

13.3.9 A student who fails to meet the minimum performance criteria listed above in a Course shall be declared as "Fail" and given "F" Grade in the concerned Course. For theory Courses, the student shall have to re-appear in the "Make-Up Examinations" as scheduled by the University in any subsequent semester, or, re-appear in the End Term Examinations of the same Course when it is scheduled at the end of the following Semester or Summer Term, if offered. The marks obtained in the Continuous Assessments (other than the End Term Examination) shall be carried forward and be included in computing the final grade, if the student secures the minimum requirements (as per Clause **Error! Reference source not found.**, **Error! Reference source not found.** of Academic Regulations in the "Make-Up Examinations" of the concerned Course. Further, the student has an option to re-register for the Course and clear the same in the summer term/ subsequent semester if he/she wishes to do so, provided the Course is offered.

12.7 Normally, for Practice/Skill based Courses, without a defined credit structure (L – T – P), but with assigned Credits, (as defined in Clause 5.2 of the Academic Regulations), the method of evaluation shall be based only on Continuous Assessments. The various components of

Continuous Assessments, the distribution of weightage among such components, and the method of evaluation/assessment shall be prescribed in the concerned Course Handout. There shall be no component of End Term Final Examinations for such Courses.

In case any exception is required for a particular course, where the methods of assessment prescribed in the specific regulations mentioned above in Sub-Clauses 12.5, 12.6 and 12.7 are not suitable/ relevant for assessing the performance in the concerned Course, the DAC shall recommend the appropriate method of assessment for the approval by the BOS.

13 Additional clarifications - Rules and Guidelines for Transfer of Credits from MOOC, etc. – Note: These are covered in Academic Regulations

The University allows students to acquire credits from other Indian or foreign institutions and/or Massive Open Online Course (MOOC) platforms, subject to prior approval. These credits may be transferred and counted toward fulfilling the minimum credit requirements for the award of a degree. The process of transfer of credits is governed by the following rules and guidelines:

13.1 The transfer of credits shall be examined and recommended by the Equivalence Committee (Refer **Error! Reference source not found.** of academic regulations 2025) and approved by the Dean - Academics.

13.2 Students may earn credits from other Indian or foreign Universities/Institutions with which the University has an MOU, and that MOU shall have specific provisions, rules and guidelines for transfer of credits. These transferred credits shall be counted towards the minimum credit requirements for the award of the degree.

13.3 Students may earn credits by registering for Online Courses offered by Study Web of Active Learning by Young and Aspiring Minds (SWAYAM) and National Program on Technology Enhanced Learning (NPTEL), or other such recognized Bodies/ Universities/Institutions as approved by the concerned BOS and Academic Council from time to time. The concerned School/Parent Department shall publish/include the approved list of Courses and the rules and guidelines governing such transfer of credits of the concerned Program from time to time. The Rules and Guidelines for the transfer of credits specifically from the Online Courses conducted by SWAYAM/ NPTEL/ other approved MOOCs are as stated in the following Sub-Clauses:

13.3.1 A student may complete SWAYAM/NPTEL/other approved MOOCs as mentioned in Clause **Error! Reference source not found.** (as per academic regulations) and transfer equivalent credits to partially or fully complete the mandatory credit requirements of Discipline Elective Courses and/or the mandatory credit requirements of Open Elective Courses as prescribed in the concerned Curriculum Structure. However, it is the sole responsibility of the student to complete the mandatory credit requirements of the Discipline Elective Courses and the Open Elective Courses as prescribed by the Curriculum Structure of the concerned Program.

13.3.2 SWAYAM/NPTEL/ other approved MOOCs as mentioned in Clause **Error! Reference source not found.** (as per academic regulations) shall be approved by the concerned Board of Studies and placed (as Annexures) in the concerned PRC.

13.3.3 Parent Departments may release a list of SWAYAM/NPTEL/other approved MOOCs for Pre-Registration as per schedule in the Academic Calendar or through University Notification to this effect.

13.3.4 Students may Pre-Register for the SWAYAM/NPTEL/other approved MOOCs in the respective Departments and register for the same Courses as per the schedule announced by respective Online Course Offering body/institute/ university.

13.3.5 A student shall request for transfer of credits only from such approved Courses as mentioned in Sub-Clause **Error! Reference source not found.** above.

13.3.6 SWAYAM/NPTEL/other approved MOOCs Courses are considered for transfer of credits only if the concerned student has successfully completed the SWAYAM/NPTEL/other approved MOOCs and obtained a certificate of successful/satisfactory completion.

13.3.7 A student who has successfully completed the approved SWAYAM/NPTEL/ other approved MOOCs and wants to avail the

provision of transfer of equivalent credits, must submit the original Certificate of Completion, or such similar authorized documents to the HOD concerned, with a written request for the transfer of the equivalent credits. On verification of the Certificates/Documents and approval by the HOD concerned, the Course(s) and equivalent Credits shall forwarded to the COE for processing of results of the concerned Academic Term.

13.3.8 The credit equivalence of the SWAYAM/NPTEL/other approved MOOCs are based on Course durations and/or as recommended by the Course offering body/institute/university. The Credit Equivalence mapped to SWAYAM/ NPTEL approved Courses based on Course durations for transfer of credits is summarised in Table shown below. The Grade will be calculated from the marks received by the Absolute Grading Table **Error! Reference source not found.**. in the academic regulations.

Table 2: Durations and Credit Equivalence for Transfer of Credits from SWAYAM-NPTEL/ other approved MOOC Courses		
Sl. No.	**Course Duration**	**Credit Equivalence**
1	4 Weeks	1 Credit
2	8 Weeks	2 Credits
3	12 Weeks	3 Credits

13.3.9 The maximum permissible number of credits that a student may request for credit transfer from MOOCs shall not exceed 20% of the mandatory minimum credit requirements specified by the concerned Program Regulations and Curriculum for the award of the concerned Degree.

13.3.9 The University shall not reimburse any fees/expense; a student may incur for the SWAYAM/NPTEL/other approved MOOCs.

13.4 The maximum number of credits that can be transferred by a student shall be limited to forty percent (40%) of the mandatory minimum credit requirements specified by the concerned Program Regulations and Curriculum for the

award of the concerned Degree. However, the grades obtained in the Courses transferred from other Institutions/MOOCs, as mentioned in this Section (13.**Error! Reference source not found.**), shall not be included in the calculation of the CGPA.

14. Structure / Component with Credit Requirements Course Baskets & Minimum Basket wise Credit Requirements

The B.Sc- Multimedia Program Structure (2024-2027) totalling 120 credits. Table 3 summarizes the type of baskets, number of courses under each basket and the associated credits that are mandatorily required for the completion of the Degree.

Table 3: B.Sc. Multimedia 2024-2027: Summary of Mandatory Courses and Minimum Credit Contribution from various Baskets

Sl. No.	Baskets	Credit Contribution
1	Core Courses	27
2	Humanities, Social Sciences & Management Science Courses (HS)	5
3	Skill Enhancement Courses (SEC)	16
4	Design Studies (DS)	16
5	Professional Practice (PP) I and II	10
6	Personal and Professional Skills (PPS)	4
7	Discipline Electives Courses	33
8	Multidisciplinary Open Electives	9
	Total Credits	**120 (Minimum)**

15. Minimum Total Credit Requirements of Award of Degree

A minimum of 120 credits is required for the award of a B.Sc.- Multimedia degree.

16. Other Specific Requirements for Award of Degree, if any, as prescribed by the Statutory Bodies

16.1 The award of the Degree shall be recommended by the Board of Examinations and approved by the Academic Council and Board of Management of the University.

16.2 A student shall be declared to be eligible for the award of the concerned Degree if she/he:

a. Fulfilled the Minimum Credit Requirements and the Minimum Credits requirements under various baskets;

b. Secure a minimum CGPA of 4.50 in the concerned Program at the end of the Semester/Academic Term in which she/he completes all the requirements for the award of the Degree as specified in Sub-Clause a of Academic Regulations;

c. No dues to the University, Departments, Hostels, Library, and any other such Centers/ Departments of the University; and

d. No disciplinary action is pending against her/him.

17. Curriculum Structure – Basket Wise Course List (not Semester Wise)
List of Courses Tabled – aligned to the Program Structure
(Course Code, Course Name, Credit Structure (LTPC), Contact Hours, Course Basket, Type of Skills etc., as applicable).

	Table 3.1 : List of Core Courses (CC)					
S.no		Course Name	L	T	P	C
1	BSM1014	Pre-Production and Pipelines for Multimedia	**2**	**0**	**4**	**4**
2	BSM2058	Photography	**1**	**0**	**4**	**3**
3	BSM2061	Television and Advertisement Production	**1**	**0**	**4**	**3**
4	BSM2002	Video Editing	**1**	**0**	**4**	**3**
5	BSM2009	Audio Technology and Production	**1**	**0**	**4**	**3**
6	BSM3004	Mini Project	**0**	**0**	**0**	**5**
7	BSM3006	On Job Training/Internship/In-House Live Project	0	0	0	**6**
	Total No. of Credits					**27**

	Table 3.2 : List of Humanities, Social Sciences & Management Science Courses (HS)					
S.No		Course Name	L	T	P	C
1	ENG1003	Communicative English	**2**	**0**	**0**	**2**
2	ENG2005	Technical Written Communication	**2**	**0**	**0**	**2**
3	CHE1020	Environmental Studies and Sustainable Development	**2**	**0**	**0**	**0**
4	KAN1001/KAN2001	Kali Kannada/Thili Kannada	**1**	**0**	**0**	**1**
		Total No. of Credits				**5**

	Table 3.3 : List of Skill Enhancement Courses (SEC)					
S.no		Course Name	L	T	P	C
1	BSM1012	Introduction to Multimedia	**1**	**0**	**4**	**3**
2	BSM1013	Visual Language & Graphics Design	**2**	**0**	**4**	**4**
3	BSM1005	Introduction to Character Sketching	**1**	**0**	**4**	**3**
4	BSM1011	Elements and Principles of Design	**2**	**0**	**4**	**4**
5	BSM1010	Observation & Ideation	**1**	**0**	**2**	**2**
	Total No. of Credits					**16**

Table 3.4 : List of Design Studies Courses (DS)						
S.No		Course Name	L	T	P	C
1	BSM2001	Introduction to 2D Animation	**1**	**0**	**4**	**3**
2	BSM2060	3D Modelling and Texturing	**1**	**0**	**4**	**3**
3	BSM2064	3D Character Animation	**1**	**0**	**4**	**3**
4	BSM3037	3D Rigging	**2**	**0**	**4**	**4**
5	BSM2066	Digital Compositing	**1**	**0**	**4**	**3**
Total No. of Credits						16

Table 3.5 : Professional Practice Courses (PP) I and II						
S.No		Course Name	L	T	P	C
1	BSM3002	Summer Internship	**0**	**0**	**0**	**4**
2	BSM3005	Portfolio Development	0	0	0	**6**
Total No. of Credits						10

Table 3.6 : Personal and Professional Skills Courses (PPS)						
S.No		Course Name	L	T	P	C
1	PPS1001	Introduction to Soft Skill	**0**	**0**	**2**	**1**
2	PPS1004	Soft Skills for Designers	**0**	**0**	**2**	**1**
3	PPS2001	Reasoning and Employment Skills	**0**	**0**	**2**	**1**
4	PPS3018	Preparedness for Interview	**0**	**0**	**2**	**1**
Total No. of Credits						4

Table 3.7: List of Discipline Elective Courses							
S.No.	Course Code	Course Name	L	T	P	C	Contact Hour
1	DESXXXX	Discipline Elective I	**1**	**0**	**4**	**3**	**5**
2	DESXXXX	Discipline Elective II	**2**	**0**	**2**	**3**	**4**
3	DESXXXX	Discipline Elective III	**2**	**0**	**2**	**3**	**4**
4	DESXXXX	Discipline Elective IV	**1**	**0**	**4**	**3**	**5**
5	DESXXXX	Discipline Elective V	**1**	**0**	**4**	**3**	**5**
6	DESXXXX	Discipline Elective VI	**2**	**0**	**2**	**3**	**4**
7	DESXXXX	Discipline Elective VII	**1**	**0**	**4**	**3**	**5**
8	DESXXXX	Discipline Elective VIII	**1**	**0**	**4**	**3**	**5**
9	DESXXXX	Discipline Elective IX	**2**	**0**	**2**	**3**	**4**
10	DESXXXX	Discipline Elective X	**1**	**0**	**4**	**3**	**5**
11	DESXXXX	Discipline Elective XI	**2**	**0**	**2**	**3**	**4**
Total No. of Credits						**33**	

Table 3.8: List of Open Elective Courses							
S.No.	Course Code	Course Name	L	T	P	C	Contact Hour
1	XXXXXXX	Open Elective - I	3	0	0	3	3
2	XXXXXXX	Open Elective - II	1	0	4	3	5
3	XXXXXXX	Open Elective - III	3	0	0	3	3
Total No. of Credits						**9**	

18. Practical / Skill based Courses – Professional Practice Courses (Internships / Thesis / Dissertation / Capstone Project Work / Portfolio / Mini project)

Practical / Skill based Courses like internship, project work, capstone project, research project / dissertation, and such similar courses, where the pedagogy does not lend itself to a typical L-T-P-C Structure as defined in Clause 5.1 of the Academic Regulations, are simply assigned the number of Credits based on the quantum of work / effort required to fulfil the learning objectives and outcomes prescribed for the concerned Courses. Such courses are referred to as Non-Teaching Credit Courses (NTCC). These Courses are designed to provide students with hands-on experience and skills essential for their professional development. These courses aim to equip students with abilities in problem identification, root cause analysis, problem-solving, innovation, and design thinking through industry exposure and project-based learning. The expected outcomes are first level proficiency in problem solving and design thinking skills to better equip B.Sc. graduates for their professional careers. The method of evaluation and grading for the Practical / Skill based Courses shall be prescribed and approved by the concerned Departmental Academic Committee (refer Annexure A of the Academic Regulations, 2025). The same shall be prescribed in the Course Plan.

18.1 Internship/ Professional Practice

18.1.1. The Internship/Professional Practice Program shall be in conducted in accordance with the Internship Policy prescribed by the University from time to time.

18.1.2 The selection criteria (minimum CGPA, pass in all Courses as on date, and any other qualifying criteria) as applicable/ stipulated by the concerned Industry/ Company for award of the Internship to a student.

18.1.3 The number of Internship/Professional Practice available for the concerned Academic Term. Further, the available number of internships shall be awarded to the students by the University on the basis of merit using the CGPA secured by the student. Provided further, the

student fulfils the criteria, as applicable, specified by the Industry/ Company providing the Internship, as stated in Sub-Clause 18.1.2 above.

18.1.4. A student may opt for Internship/Professional Practice in an Industry/Company of her/his choice, subject to the condition that the concerned student takes the responsibility to arrange the Internship on her/his own. Provided further, that the Industry/ Company offering such Internship confirms to the University that the Internship program shall be conducted in accordance with the Program Regulations and Internship Policy of the University.

18.1.5. A student selected for an Internship in an Industry/ Company shall adhere to all the rules and guidelines prescribed in the Internship Policy of the University.

18.1.6. Students have to report their respective guide every week (online / offline mode depending on the geographical area of their ongoing research) mentioned by the department to update their progress on the concerned project.

18.1.7. Professional Practice –I

Professional Practice -I is a 4 Credit Course. This first level practice-based course is conducted after the 4th Semester of the B.Sc. Multimedia Program, during the summer break (usually June – July), in accordance with the guidelines mentioned above from 18.1.1 to 18.1.6.

A student may undergo an Internship Program for a period of 8 weeks depending on Specilazation in an Industry/ Company,

18.1.8 Professional Practice – II

Professional Practice - II is an intensive practice-based course with 6 Credits offered during the final (3rd) year of the B.Sc. Multimedia Program. Students may register for Professional Practice – II in the 6th Semester of the B.Sc. Multimedia Program, in accordance with the guidelines mentioned below from 18.2 to 18.4

18.2 Project Work

18.2.1 A student may do an extensive Project Work in an Industry/ Company/ Research Laboratory or the University Department(s), subject to the following conditions:

18.2.2 The Project Work shall be approved by the concerned HOD and be carried out under the guidance of a faculty member.

18.2.3 The student may do the Project Work in an Industry/ Company/ Research Laboratory of her/his choice subject to the above-mentioned condition (Sub-Clause 18.2.1). Provided further, the Industry/ Company/ Research Laboratory offering such project work confirms to the University that the Project Work will

be conducted in accordance with the Program Regulations and requirements of the University.

18.2.4 Students have to report their respective guide every week (online / offline mode depending on the geographical area of their ongoing research) mentioned by the department to update their progress on the concerned project.

18.3.1 Capstone Project/Portfolio

A student may undergo a Capstone Project/Portfolio for a period of 12 weeks in an industry / company or academic / research institution in the 6th Semester as applicable, subject to the following conditions:

18.3.2 The Capstone Project shall be in conducted in accordance with the Capstone Project/Portfolio Policy prescribed by the University from time to time.

18.3.2.1 The selection criteria (minimum CGPA, pass in all Courses as on date, and any other qualifying criteria) as applicable / stipulated by the concerned Industry / Company or academic / research institution for award of the Capstone Project/Portfolio to a student;

18.3.2.2 The number of Capstone Project/ Portfolio available for the concerned Academic Term. Further, the available number of Capstone Project / Portfolio shall be awarded to the students by the University on the basis of merit using the CGPA secured by the student. Provided further, the student fulfils the criteria, as applicable, specified by the Industry / Company or academic / research institution providing the Capstone Project/ Portfolio, as stated in Sub-Clause 18.3.2 above.

18.3.2.3 A student may opt for Capstone Project/Portfolio in an Industry / Company or academic / research institution of her / his choice, subject to the condition that the concerned student takes the responsibility to arrange the I Capstone Project on her / his own. Provided further, that the Industry / Company or academic / research institution offering such Capstone Project/portfolio confirms to the University that the Capstone Project shall be

conducted in accordance with the Program Regulations and Internship Policy of the University.

18.3.2.4 A student selected for a Capstone Project/ Portfolio in an industry / company or academic / research institution shall adhere to all the rules and guidelines prescribed in the Capstone Project Policy of the University.

18.3.2.5 Students have to report their respective guide every week (online / offline mode depending on the geographical area of their ongoing research) mentioned by the department to update their progress on the concerned project.

18.4 Research Project / Dissertation

A student may opt to do a Research Project / Dissertation for a period of 12 weeks in an Industry / Company or academic / research institution or the University Department(s) as an equivalence of Capstone Project, subject to the following conditions:

18.4.1 The Research Project / Dissertation shall be approved by the concerned HOD and be carried out under the guidance of a faculty member.

18.4.2 Students have to report their respective guide every week (online / offline mode depending on the geographical area of their ongoing research) mentioned by the department to update their progress on the concerned project.

The student may do the Research Project / Dissertation in an Industry / Company or academic / research institution of her / his choice subject to the above-mentioned condition (Sub-Clause 18.4.1). Provided further, that the Industry / Company or academic / research institution offering such Research Project / Dissertation confirms to the University that the Research Project / Dissertation work will be conducted in accordance with the Program Regulations and requirements of the University.

19. List of Elective Courses under various Specialisations / Stream Basket

Table 3.9: Discipline Electives Courses/Specialization Tracks – Minimum of 33 credits is to be earned by the student in a particular track.						
S. No		Course Name	L	T	P	C
1	BSM 2020	UI/UX Design	1	0	4	3
2	BSM2012	E Content Development	0	0	4	2
3	BSM2013	Radio Production	0	0	4	2
4	BSM2090	Multimedia Databases	3	0	0	3
5	BSM2015	Social Media Marketing	1	0	4	3
6	BSM2016	Advertising and public relation	2	0	2	3
7	BSM 2055	Infographics	0	0	4	3
8	BSM2017	Interactive Multimedia applications	0	0	4	2
9	BSM2018	E- Publishing	2	0	2	3
10	BSM2019	Android Mobile Applications Development	1	0	4	3
11	BSM2056	Web Application Development	0	0	4	2
12	BSM3036	Studio Design and Management	2	0	0	2
13	BSM2091	Web Design and Development	1	0	4	3
14	BSM3035	Video Codes and Standards	3	0	0	3
15	BSM2065	3D Lighting and Rendering	2	0	2	3
16	BSM3039	AI for Multimedia	1	0	4	3
17	BSM2005	Desktop Publishing	0	0	4	2
18	BSM2010	Colour theory	3	0	0	3
19	BSM2011	3D Lighting and Camera Lab	0	0	4	2
20	BSM2024	Digital Cinematography	2	0	4	4
21	BSM2025	TV Program Production	1	0	4	3
22	BSM2026	Film Production	2	0	2	3
23	BSM3015	3D Video & Graphics	3	0	0	3
24	BSM2027	Television Systems	3	0	0	3
25	BSM2028	Principles of Journalism	3	0	0	3
26	BSM2029	Corporate Communications	3	0	0	3
27	BSM2030	Communication Theories and Models	3	0	0	3
28	BSM2031	Digital Colour Correction	2	0	2	3
29	BSM2032	Studio Management	3	0	0	3
30	DES1008	Materials, Media, Tools & Techniques	2	0	4	4
31	DES1014	Introduction to Design Ethnography	2	0	2	3
32	DES1015	Basics of Technical Drawing	2	0	2	3
33	BSM2004	History and pipeline of Animation	2	0	0	2

34	BSM3017	Game Development	1	0	4	3
35	BSM3018	Virtual Sculpting Lab	0	0	4	2
36	BSM3019	Character Animation	0	0	4	2
37	BSM3020	Advanced rigging	0	0	2	1
38	BSM3021	Production for animation	1	0	4	3
39	BSM3022	Augmented and Virtual Reality	2	0	2	3
40	BSM3023	Motion Capture	3	0	0	3
41	BSM3024	Advanced Animation	0	0	4	2
42	BSM3025	Anatomy Study	3	0	0	3
43	BSM1009	Design Thinking and Communication	2	0	2	3
44	BSM2014	Principles of Animation	1	0	4	3
45	BSM2056	Stop motion Animation	0	0	2	1
46	BSM2043	Game Mechanics and Dynamics	3	0	0	3
47	BSM2047	Assets for Game Production	0	0	4	2
48	BSM1006	Introduction to Immersive Technologies	1	0	4	3
49	BSM2040	360 Video Production	0	0	4	2
50	BSM2051	Game Testing and Analysis	3	0	0	3
51	BSM2052	Game Interface and Level Design	3	0	0	3
52	BSM3033	Concept Development and Creativity	3	0	0	3
53	BSM3015	Design Thinking and Communication	2	0	4	4
54	BSM3016	Video streaming and AR technologies	3	0	0	3
55	BSM2034	Media Management and Entrepreneurship	3	0	0	3
56	BSM2068	Game Ideation and Ethics	2	0	2	3
57	BSM3040	3D Game Art and Design	1	0	4	3

20. Open Electives

Open Electives are the courses offered by any Department/School of the University. The primary objective of offering Open Electives is to provide interdisciplinary/ transdisciplinary learning experiences. The outcome is a graduate with a fair exposure to disciplines beyond the chosen Branch in the B.Des Program.

Open Electives offered by any Department/School of the University are listed in the Course Structure under the Open Elective category and offered to students of any Department including the parent Department/School.

The Course details and method of evaluation shall be clearly prescribed in the concerned Course Handout.

20.1 List of Open Electives to be offered by the School / Department (Separately for ODD and EVEN Semesters.

Table 3.10: Multidisciplinary Open Electives – Minimum of 9 credits is to be earned by the student.						
Sl. No.	**Course Code**	**Course Name**	**L**	**T**	**P**	**C**
Chemistry Basket						
1	CHE1003	Fundamentals of Sensors	3		0	3
2	CHE1004	Smart materials for IOT	3		0	3
3	CHE1005	Computational Chemistry	2		0	2
4	CHE1006	Introduction to Nano technology	3		0	3
5	CHE1007	Biodegradable electronics	2		0	2
6	CHE1008	Energy and Sustainability	2		0	2
7	CHE1009	3D printing with Polymers	2		0	2
8	CHE1010	Bioinformatics and Healthcare IT	2		0	2
9	CHE1011	Chemical and Petrochemical catalysts	3		0	3
10	CHE1012	Introduction to Composite materials	2		0	2
11	CHE1013	Chemistry for Engineers	3		0	3
12	CHE1014	Surface and Coatings technology	3		0	3
13	CHE1015	Waste to Fuels	2		0	2
14	CHE1016	Forensic Science	3		0	3
Civil Engineering Basket						
1	CIV1001	Disaster mitigation and management	3		0	3
2	CIV1002	Environment Science and Disaster Management	3		0	3
3	CIV2001	Sustainability Concepts in Engineering	3		0	3

4	CIV2002	Occupational Health and Safety	3		0	3
5	CIV2003	Sustainable Materials and Green Buildings	3		0	3
6	CIV2004	Integrated Project Management	3		0	3
7	CIV2005	Environmental Impact Assessment	3		0	3
8	CIV2006	Infrastructure Systems for Smart Cities	3		0	3
9	CIV2044	Geospatial Applications for Engineers	2		2	3
10	CIV2045	Environmental Meteorology	3		0	3
11	CIV3046	Project Problem Based Learning	3		0	3
12	CIV3059	Sustainability for Professional Practice	3		0	3
		Commerce Basket				
1	COM2001	Introduction to Human Resource Management	2		0	2
2	COM2002	Finance for non-finance	2		0	2
3	COM2003	Contemporary Management	2		0	2
4	COM2004	Introduction to Banking	2		0	2
5	COM2005	Introduction to Insurance	2		0	2
6	COM2006	Fundamentals of Management	2		0	2
7	COM2007	Basics of Accounting	3		0	3
Computer Science Basket						
1	CSE2002	Programming in Java	2		2	3
2	CSE2003	Social Network Analytics	3		0	3
3	CSE2004	Python Application Programming	2		2	3
4	CSE2005	Web design fundamentals	2		2	3
5	CSE3111	Artificial Intelligence: Search Methods For Problem Solving	3		0	3

6	CSE3112	Privacy And Security In Online Social Media	3		0	3
7	CSE3113	Computational Complexity	3		0	3
8	CSE3114	Deep Learning for Computer Vision	3		0	3
9	CSE3115	Learning Analytics Tools	3		0	3
Design Basket						
1	DES1001	Sketching and Painting	0	0	2	1
2	DES1002	Innovation and Creativity	2	0	0	2
3	DES1003	Serviceability of Fashion Products	1	0	2	2
4	DES1004	Choices in Virtual Fashion	1	0	2	2
5	DES1005	Fashion Lifestyle and Product Diversity	1	0	2	2
6	DES1006	Colour in Everyday Life	1	0	2	2
7	DES 1121	Introduction to UX Design	1	0	2	2
8	DES 1122	Introduction to Jewellery Making	1	0	2	2
9	DES 1123	Packaging Design	1	0	2	2
10	DES 1124	Spatial Stories	1	0	2	2
11	DES 1125	Polymer Clay	1	0	2	2
12	DES1135	Design Ethics and Sustainability	3	0	0	3
13	DES1146	Introduction to Design Thinking	1	0	0	1
14	DES2001	Design Thinking	3	0	0	3
15	DES 2080	Art of Design Language	3	0	0	3
16	DES 2081	Brand Building in Design	3	0	0	3
17	DES 2085	Web Design Techniques	3	0	0	3
18	DES 2089	3D for Designers	1	0	4	3
19	DES 2090	Creative Thinking for Professionals	3	0	0	3
20	DES 2091	Idea Formulation	3	0	0	3
21	DES2124	Shaping Thematic Environments	3	0	0	3

22	DES2125	Adaptive Reuse & Recycle	3	0	0	3
23	DES2138	Service Design	3	0	0	3
24	DES2139	AI for Design Innovation	3	0	0	3
25	DES2140	Project Management Essentials for Designers	3	0	0	3
26	DES2141	Digital Marketing Strategies for Designers	3	0	0	3
27	DES2142	3D & UI Design Tools (Blender/Figma)	3	0	0	3
28	DES2143	Design Communication Essentials	3	0	0	3
29	DES2144	Material Sourcing for Designers	3	0	0	3
30	DES2145	Designing for Healthcare	3	0	0	3
31	DES2146	Designing for XR (AR/VR)	3	0	0	3
32	DES2147	Coding Fundamentals: Python for Designers	3	0	0	3
33	DES2148	Design Forecasting	3	0	0	3
34	DES2149	Design Journalism	3	0	0	3
35	DES2150	Visual Presentations	2	0	2	3
36	DES2151	Visual Perception in Everyday Life	2	0	2	3
37	DES2152	Fashion Product Development	3	0	0	3
38	DES2153	Jewellery Design Essentials	2	0	2	3
39	DES2158	3D Aesthetics and Visualisation	1	0	4	3
40	DES2159	Intellectual Property Rights	3	0	0	3
41	DES2126	Introduction to Film Making	0	0	0	3
Electrical and Electronics Engineering Basket						
1	EEE1002	IoT based Smart Building Technology	3	0	0	3
2	EEE1003	Basic Circuit Analysis	3	0	0	3
3	EEE1004	Fundamentals of Industrial Automation	3	0	0	3

4	EEE1005	Electric Vehicles & Battery Technology	3	0	0	3
5	EEE1006	Smart Sensors for Engineering Applications	3	0	0	3
		Electronics and Communication Engineering Basket				
1	ECE1003	Fundamentals of Electronics	3	0	0	3
2	ECE1004	Microprocessor based systems	3	0	0	3
3	ECE1005	Journey of Communication Systems	3	0	0	3
4	ECE3089	Artificial Neural Networks	3	0	0	3
5	ECE3090	Digital System Design using VERILOG	3	0	0	3
6	ECE3091	Mathematical Physics	3	0	0	3
7	ECE3092	Photonic Integrated Circuits	3	0	0	3
8	ECE3093	Machine learning for Music Information Retrieval	3	0	0	3
9	ECE3094	Video Processing and Computer Vision	3	0	0	3
10	ECE3095	Blockchain and Cryptocurrency Technologies	3	0	0	3
11	ECE3096	Natural Language Processing	3	0	0	3
12	ECE3097	Smart Electronics in Agriculture	3	0	0	3
13	ECE3098	Environment Monitoring Systems	3	0	0	3
14	ECE3099	Modern Wireless Communication with 5G	3	0	0	3
15	ECE3100	Underwater Communication	3	0	0	3
16	ECE3101	Printed Circuit Board Design	3	0	0	3
17	ECE3102	Consumer Electronics	3	0	0	3

18	ECE3103	Product Design of Electronic Equipment	3	0	0	3
19	ECE3104	Vehicle to Vehicle Communication	3	0	0	3
20	ECE3105	Wavelets and Filter Banks	3	0	0	3
21	ECE3106	Introduction to Data Analytics	3	0	0	3
22	ECE3107	Machine Vision for Robotics	3	0	0	3
		English Basket				
1	ENG1008	Indian Literature	2	0	0	2
2	ENG1009	Reading Advertisement	3	0	0	3
3	ENG1010	Verbal Aptitude for Placement	2	0	2	3
4	ENG1011	English for Career Development	3	0	0	3
5	ENG1012	Gender and Society in India	2	0	0	2
6	ENG1013	Indian English Drama	3	0	0	3
7	ENG1014	Logic and Art of Negotiation	2	0	2	3
8	ENG1015	Professional CommunicationSkills for Engineers	1	0	0	1
9	FRL1002	Basic French	2	0	0	2
Fitness and Wellness Basket						
1	DSA2001	Spirituality for Health	2	0	0	2
2	DSA2002	Yoga for Health	2	0	0	2
3	DSA2003	Stress Management and Well Being	2	0	0	2
Kannada Basket						
1	KAN1003	Kannada Kaipidi	3	0	0	3
2	KAN2003	Pradharshana Kale	1	0	2	2
3	KAN2004	Sahithya Vimarshe	2	0	0	2
4	KAN2005	Anuvadha Kala Sahithya	3	0	0	3
5	KAN2006	Vichara Manthana	3	0	0	3
6	KAN2007	Katha Sahithya Sampada	3	0	0	3
7	KAN2008	Ranga Pradarshana Kala	3	0	0	3
Foreign Language Basket						

1	FRL1004	Introduction of French Language	2	0	0	2
2	FRL1005	Fundamentals of French	2	0	0	2
3	FRL1009	Mandarin Chinese for Beginners	3	0	0	3
4	FLR1002	Basic French	1	0	0	2
		Law Basket				
1	LAW1001	Introduction to Sociology	2	0	0	2
2	LAW2001	Indian Heritage and Culture	2	0	0	2
3	LAW2002	Introduction to Law of Succession	2	0	0	2
4	LAW2003	Introduction to Company Law	2	0	0	2
5	LAW2004	Introduction to Contracts	2	0	0	2
6	LAW2005	Introduction to Copy Rights Law	2	0	0	2
7	LAW2006	Introduction to Criminal Law	2	0	0	2
8	LAW2007	Introduction to Insurance Law	2	0	0	2
9	LAW2008	Introduction to Labour Law	2	0	0	2
10	LAW2009	Introduction to Law of Marriages	2	0	0	2
11	LAW2010	Introduction to Patent Law	2	0	0	2
12	LAW2011	Introduction to Personal Income Tax	2	0	0	2
13	LAW2012	Introduction to Real Estate Law	2	0	0	2
14	LAW2013	Introduction to Trademark Law	2	0	0	2
15	LAW2014	Introduction to Competition Law	3	0	0	3
16	LAW2015	Cyber Law	3	0	0	3
17	LAW2016	Law on Sexual Harrassment	2	0	0	2
18	LAW2017	Media Laws and Ethics	2	0	0	2
		Mathematics Basket				
1	MAT2008	Mathematical Reasoning	3	0	0	3

2	MAT2014	Advanced Business Mathematics	3	0	0	3
3	MAT2041	Functions of Complex Variables	3	0	0	3
4	MAT2042	Probability and Random Processes	3	0	0	3
5	MAT2043	Elements of Number Theory	3	0	0	3
6	MAT2044	Mathematical Modelling and Applications	3	0	0	3
Mechanical Engineering Basket						
1	MEC1001	Fundamentals of Automobile Engineering	3	0	0	3
2	MEC1002	Introduction to Matlab and Simulink	3	0	0	3
3	MEC1003	Engineering Drawing	1	0	4	3
4	MEC2001	Renewable Energy Systems	3	0	0	3
5	MEC2002	Operations Research & Management	3	0	0	3
6	MEC2003	Supply Chain Management	3	0	0	3
7	MEC2004	Six Sigma for Professionals	3	0	0	3
8	MEC2005	Fundamentals of Aerospace Engineering	3	0	0	3
9	MEC2006	Safety Engineering	3	0	0	3
10	MEC2007	Additive Manufacturing	3	0	0	3
11	MEC3069	Engineering Optimisation	3	0	0	3
12	MEC3070	Electronics Waste Management	3	0	0	3
13	MEC3071	Hybrid Electric Vehicle Design	3	0	0	3
14	MEC3072	Thermal Management of Electronic Appliances	3	0	0	3
15	MEC3200	Sustainable Technologies and Practices	3	0	0	3
16	MEC3201	Industry 4.0	3	0	0	3

Petroleum Engineering Basket						
1	PET1005	Geology for Engineers	2	0	0	2
2	PET1006	Overview of Energy Industry	2	0	0	2
3	PET1007	Introduction to Energy Trading and Future Options	2	0	0	2
4	PET1008	Sustainable Energy Management	2	0	0	2
5	PET2026	Introduction to Computational Fluids Dynamics	3	0	0	3
6	PET2028	Polymer Science and Technology	3	0	0	3
7	PET2031	Overview of Material Science	3	0	0	3
8	PET2032	Petroleum Economics	3	0	0	3
		Physics Basket		0		
9	PHY1003	Mechanics and Physics of Materials	3	0	0	3
10	PHY1004	Astronomy	3	0	0	3
11	PHY1005	Game Physics	2	0	2	3
12	PHY1006	Statistical Mechanics	2	0	0	2
13	PHY1007	Physics of Nanomaterials	3	0	0	3
14	PHY1008	Adventures in nanoworld	2	0	0	2
15	PHY2001	Medical Physics	2	0	0	2
16	PHY2002	Sensor Physics	1	0	2	2
17	PHY2003	Computational Physics	1	0	2	2
18	PHY2004	Laser Physics	3	0	0	3
19	PHY2005	Science and Technology of Energy	3	0	0	3
20	PHY2009	Essentials of Physics	2	0	0	2
		Management Basket		0		
1	MGT1001	Introduction to Psychology	3	0	0	3
2	MGT1002	Business Intelligence	3	0	0	3
3	MGT1003	NGO Management	3	0	0	3
4	MGT1004	Essentials of Leadership	3	0	0	3
5	MGT1005	Cross Cultural Communication	3	0	0	3
6	MGT2001	Business Analytics	3	0	0	3

7	MGT2002	Organizational Behaviour	3	0	0	3
8	MGT2003	Competitive Intelligence	3	0	0	3
9	MGT2004	Development of Enterprises	3	0	0	3
10	MGT2005	Economics and Cost Estimation	3	0	0	3
11	MGT2006	Decision Making Under Uncertainty	3	0	0	3
12	MGT2007	Digital Entrepreneurship	3	0	0	3
13	MGT2008	Econometrics for Managers	3	0	0	3
14	MGT2009	Management Consulting	3	0	0	3
15	MGT2010	Managing People and Performance	3	0	0	3
16	MGT2011	Personal Finance	3	0	0	3
17	MGT2012	E Business for Management	3	0	0	3
18	MGT2013	Project Management	3	0	0	3
19	MGT2014	Project Finance	3	0	0	3
20	MGT2015	Engineering Economics	3	0	0	3
21	MGT2016	Business of Entertainment	3	0	0	3
22	MGT2017	Principles of Management	3	0	0	3
23	MGT2018	Professional and Business Ethics	3	0	0	3
24	MGT2019	Sales Techniques	3	0	0	3
25	MGT2020	Marketing for Engineers	3	0	0	3
26	MGT2021	Finance for Engineers	3	0	0	3
27	MGT2022	Customer Relationship Management	3	0	0	3
28	MGT2023	People Management	3	0	0	3
		Media Studies Specific OE Basket		0		
1	BCA2011	Web Design Development	1	0	4	3
2	MBA2017	Principles of Management	3	0	3	3
		Media Studies Basket		0		

1	BAJ3050	Corporate Filmmaking and Film Business	0	0	4	2
2	BAJ3051	Digital Photography	2	0	2	3
3	BAJ3055	Introduction to News Anchoring and News Management	0	0	2	1
Research URE Basket						
1	URE2001	University Research Experience	-	0	-	3
2	URE2002	University Research Experience	-	0	-	0

*Open Electives courses offered by other schools in a semester and as approved by the BOS will be added to the above list and will be made available for the students for Pre-Registration.

21. List of MOOC (NPTEL) Courses

21.1 NPTEL - Discipline Elective Courses for B.Sc. Multimedia

Sl. No.	Course ID	Course Name	Duration
1		Web-designing and multimedia Technology By Dr. B. Yogameena https://onlinecourses.swayam2.ac.in/ntr25_ed64/preview	12 Weeks

21.2 NPTEL - Open Elective Courses for B. Sc. Multimedia

Sl. No.	Course ID	Course Name	Duration
1	noc25-de12	Introduction to Graphic Design	8 Weeks
2	noc25-mg15	Business Statistics	12 Weeks
3	noc25-mg06	AI in Marketing	12 Weeks
4	noc25-mg31	International Business	12 Weeks
5	noc25-mg62	Supply Chain Digitization	12 Weeks
6	noc25-me70	Robotics: Basics and Selected Advanced Concepts	12 Weeks

22. Recommended Semester Wise Course Structure / Flow including the Programme / Discipline Elective Paths / Options

SEMESTER-WISE COURSE BREAK-UP

Sl. No.	Course Code	Course Name	L	T	P	C	Basket
Semester 1						**23**	
1	BSM1012	Introduction to Multimedia	**1**	**0**	**4**	**3**	Skill Enhancement Courses (SEC)
2	BSM1013	Visual Language & Graphics Design	**2**	**0**	**4**	**4**	Skill Enhancement Courses (SEC)
3	BSM1014	Pre-Production and Pipelines for Multimedia	**2**	**0**	**4**	**4**	Core (Professional) Course (CC)
4	BSM1005	Introduction to Character Sketching	**1**	**0**	**4**	**3**	Skill Enhancement Courses (SEC)
5	BSM1011	Elements and Principles of Design	**2**	**0**	**4**	**4**	Skill Enhancement Courses (SEC)
6	BSM1010	Observation & Ideation	**1**	**0**	**2**	**2**	Skill Enhancement Courses (SEC)
7	ENG1003	Communicative English	**2**	**0**	**0**	**2**	Humanities
8	PPS1001	Introduction to Soft Skill	**0**	**0**	**2**	**1**	PPS
Semester 2						**19**	
1	BSM2001	Introduction to 2D Animation	**1**	**0**	**4**	**3**	Design Studies (DS)
2	BSM2058	Photography	**1**	**0**	**4**	**3**	Core (Professional) Course (CC)
3	BSMXXXX	Discipline Elective-I	**1**	**0**	**4**	**3**	Discipline Elective
4	BSMXXXX	Discipline Elective-II	**2**	**0**	**2**	**3**	Discipline Elective
5	BSMXXXX	Discipline Elective-III	**2**	**0**	**2**	**3**	Discipline Elective
6	ENG2005	Technical Written Communication	**2**	**0**	**0**	**2**	Humanities
7	CHE1020	Environmental Studies and Sustainable Development	**2**	**0**	**0**	**0**	Humanities
8	PPS1004	Soft Skills for Designers	**0**	**0**	**2**	**1**	PPS
9	KAN1001/KAN2001	Kali Kannada/Thili Kannada	**1**	**0**	**0**	**1**	Humanities
Semester 3						**19**	
1	BSM2060	3D Modelling and Texturing	**1**	**0**	**4**	**3**	Design Studies (DS)
2	BSM2061	Television and Advertisement Production	**1**	**0**	**4**	**3**	Core (Professional) Course (CC)
3	BSMXXXX	Discipline Elective-IV	**1**	**0**	**4**	**3**	Discipline Elective
4	BSMXXXX	Discipline Elective-V	**1**	**0**	**4**	**3**	Discipline Elective
5	BSMXXXX	Discipline Elective-VI	**2**	**0**	**2**	**3**	Discipline Elective
6	PPS2001	Reasoning and Employment Skills	**0**	**0**	**2**	**1**	PPS

7	BSMXXXX	Discipline Elective-VII	**1**	**0**	**4**	**3**	Discipline Elective
Semester 4						**22**	
1	BSMXXXX	Discipline Elective-VIII	**1**	**0**	**4**	**3**	Discipline Elective
2	BSM2064	3D Character Animation	**1**	**0**	**4**	**3**	Design Studies (DS)
3	BSM3037	3D Rigging	**2**	**0**	**4**	**4**	Design Studies (DS)
4	XXXXXXX	Open Elective - I	**3**	**0**	**0**	**3**	Multidisciplinary Open Electives
5	BSMXXXX	Discipline Elective IX	**2**	**0**	**2**	**3**	Discipline Elective
6	BSMXXXX	Discipline Elective X	**1**	**0**	**4**	**3**	Discipline Elective
7	BSM2002	Video Editing	**1**	**0**	**4**	**3**	Core (Professional) Course (CC)
Semester 5						**25**	
1	BSM2009	Audio Technology and Production	**1**	**0**	**4**	**3**	Core (Professional) Course (CC)
2	BSMXXXX	Discipline Elective-XI	**2**	**0**	**2**	**3**	Discipline Elective
3	BSM2066	Digital Compositing	**1**	**0**	**4**	**3**	Design Studies (DS)
4	XXXXXXX	Open Elective - II	**1**	**0**	**4**	**3**	Multidisciplinary Open Electives
5	PPS3018	Preparedness for Interview	**0**	**0**	**2**	**1**	PPS
6	BSM3002	Summer Internship	**0**	**0**	**0**	**4**	Professional Practice 1 and 2
7	XXXXXXX	Open Elective III	**3**	**0**	**0**	**3**	Multidisciplinary Open Electives
8	BSM3004	Mini Project	**0**	**0**	**0**	**5**	Core (Professional) Course (CC)
Semester 6						**12**	
1	BSM3006	On Job Training/Internship/In-House Live Project	0	0	0	**6**	Core (Professional) Course (CC)
2	BSM3005	Portfolio Development	0	0	0	**6**	Professional Practice 1 and 2
		Grand Total				**120**	

23. Course Catalogues

BSM1012: Introduction to Multimedia

Course Code: BSM1012	**Course Title: Introduction to Multimedia** **Type of Course: 1] School Core**	**L-T-P-C**	1	0	4	3

	2] Practical Integrated					

Version No.		1.0
Course Pre-requisites		**Nil**
Anti-requisites		**NIL**
Course Description		This course provides an in-depth introduction to the basics and fundamentals of multimedia. Students will explore various multimedia components and tools, gaining hands-on experience with the latest technologies. The course covers written and verbal multimedia, the role of art and craft in multimedia, and digital multimedia. Emphasis is placed on how multimedia content can enhance user experiences across different industries, preparing students for diverse applications in their future careers. Through practical assignments and projects, students will develop skills in creating and analyzing multimedia content
Course Objective		The course's objective is to familiarize learners with the concepts of Multimedia Model and attain **Skill Development** through Multimedia Fundamentals **Experiential Learning** techniques.
Course Outcomes		On successful Completion of this course students shall be able to **Theory Component:** **1. Understand** the concept of different Multimedia Model's . **Practical component:** 2. **Produce** good visual explanatory videos and presentations 3. **Develop** script and storyboard for various communication channels
Course Content:		Graphic Communication,2D and 3D animations, Video editing and Digital Photography.

Module 1	Written and Verbal Multimedia	Assignment Comparative report Documentation		**9 Hours**

	Topics: **Introduction to Multimedia** - Definition and Components of Multimedia, History and Evolution of Multimedia, Applications of Multimedia. **Written Multimedia** - Text in Multimedia, Typography and Text Design, Writing for Multimedia: Best Practices. **Verbal Multimedia** -Voice and Narration in Multimedia, Scriptwriting for Multimedia, Techniques for Effective Oral Communication				
Module 2		Art and Craft in Multimedia	Assignment Comparative report Documentation		**9 Hours**
	Topics: **Visual Elements in Multimedia**- Basics of Graphic Design, Color Theory and Its Application in Multimedia, Use of Images and Graphics. **Audio Elements in Multimedia**- Basics of Sound Design, Music and Effects in Multimedia, Audio Recording and Editing Techniques. **Animation and Motion Graphics**-Principles of Animation, Tools and Techniques for Creating Animations, Integration of Animation in Multimedia Projects				
Module 3		Digital Multimedia	Assignment Documentation		**9 Hours**
	Topics: **Digital Photography and Imaging**- Basics of Digital Photography, Image Editing and Manipulation, Use of Photography in Multimedia- **Video Production**- Basics of Video Shooting and Editing, Storyboarding and Planning, Integration of Video in Multimedia Projects, **Web, and Interactive Media**- Basics of Web Design, Interactive Multimedia and User Experience, Tools for Creating Interactive Content				

	List of Practical Tasks: **Level 1:** 1: Create a Digital Presentation 2: Create Progressive Stop Motion Animation. 3: Develop Script for Radio Jingle/ Advertisement 4: Produce a 2D Traditional Animation 5: Create a Basic 3D Ball Bounce Animation 6: Produce a Video Advertisement (Focus on Cinematography and Editing) **Level-2:** 1: Create a Photo Album 2: Create a mini animation telling a small story **Targeted Application & Tools that can be used:** In the field of multimedia, various applications and tools are essential for creating, editing, and managing multimedia content. For written and verbal multimedia, tools like Microsoft Word and Google Docs are widely used for document creation and collaboration, while Audacity and Adobe Audition are popular for audio editing. For art and craft in multimedia, Adobe Photoshop and Illustrator are industry standards for graphic design and digital art. In digital multimedia, tools such as Adobe Premiere Pro and Final Cut Pro are crucial for video editing, while platforms like Unity and Blender are invaluable for 3D modeling and animation. These tools empower students to produce professional-quality multimedia projects and gain hands-on experience in their respective fields
	Text Books 1.Tay Vaughan, Multimedia: Making it Work (with CD), 9th Edition, McGraw Hill Education 2.Woody Woodhall, Audio Production and Post Production, Jones& Bartlett Learning
	Reference 1. Ranjan Parekh, Principles of Multimedia, 2nd Edition, McGraw Hill Education, 2013. 2. RicWallace, Live Sound Basics, 2012, CreateSpace Independent Publishing Platform 3. Drew O. McDaniel, Rick C. Shriver, Kenneth Ray Collins - Fundamentals of Audio Production, 2008 , Pearson/A&B 4. Scott Kelby, The Digital Photography Book, 2006, Peachpit Press 5. Richard Williams, The Animator's Survival Kit, 2001, Farrar, Straus and Giroux
	Topics relevant to "SKILL DEVELOPMENT SKILLS": Multimedia Objects, Multimedia in business and work for developing **"Skill Development"** through **Experiential Learning** Techniques. This is attained through motion capture assessment components mentioned in course handout.

Catalogue prepared by		Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM1013 Visual Language & Graphics Design

Course Code: BSM1013	**Course Title: Visual Language & Graphics Design** **Type of Course: 1] School Core** **2] Integrated**	**L-T-P-C**	2	0	4	4
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	Ability to use design thinking strategies in an iterative design process. Exploring composition, typography, and photo manipulation techniques. Crafting logos, branding elements, and professional portfolios. This course equips graduating students with an overall understanding of the Visual Language and equips them with the design thinking approach to implement the learning into designing communication and brand identity elements in graphic editing software's. Preparing designers for design careers with insights into trends, ethics, and collaboration strategies.					
Course Outcomes	On successful completion of the course the students shall be able to: **Theory Component:** 1. **Recognize** design principles, design process, theory, and contemporary design practices. **Practical Component:** 2. **Demonstrate** proficiency in identified technical skills, understanding the process of creating, analysing, and evaluating graphic design solutions. 3. **Produce** graphics designs for brands and companies 4. **Analyse** and **Experiment** between the various outputs					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Visual Language and Graphics Design and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Content:	Design Foundations & Visual Communication, Mastering Design Techniques & Visual Storytelling, Branding & Identity Design, Professional Portfolio & Design Practices					
Module 1	**Design Foundations & Visual Communication**	Assignment	**20 Hours**			

- **Topics:**
  - **The Building Blocks of Visual Language:**
    - Semiotics: Explore the relationship between signs, symbols, and their meaning.
    - Visual Elements: Analyse the use of line, shape, color, texture, space, and value in design.
    - Design Principles: Understand how balance, contrast, hierarchy, rhythm, emphasis, and unity shape visual communication.
  - **The Power of Perception:**
    - Gestalt Theory: Learn how the human brain perceives and interprets visual information.
    - Visual Hierarchy: Master the art of directing viewers' attention within a design.
    - Color Psychology: Explore the impact of color on emotions and user behavior.
    - Cultural and Emotional Sense in Visual Language
  - **Applying Visual Language in Design:**
    - Typography Fundamentals: Understand typographic elements (font, weight, size, spacing) and their influence on meaning.
    - Design Styles & Movements: Analyze the visual characteristics of various design styles (e.g., minimalism, swiss style).
  - **Visual Communication Analysis:**
    - Deconstructing Designs: Analyze existing designs (advertisements, websites, packaging) to identify their visual elements, principles, and communication goals.
    - Critiquing Visuals: Develop skills to critique design work constructively based on visual language principles.
    - Case Studies: Explore how successful brands utilize visual language to build brand identity and achieve marketing objectives.

Module 2	**Mastering Design Techniques & Visual Storytelling**	Assignments	**15 Hours**

- **Topics:**
  - Introduction to Photo editing software: Navigate the workspace and explore essential tools for design tasks (selections, layers, adjustments, masking).
  - Advanced Photoshop Techniques: Explore layer functionalities (styles, blending modes), advanced text manipulation for typography, and photo manipulation/editing techniques (selections, adjustments, filters).
  - Visual Storytelling: Learn how to use design elements and principles to create compelling narratives within visual compositions.
  - Design Application: Apply design skills to create visually impactful layouts for different purposes (posters, infographics, social media graphics).

Module 3	**Branding & Identity Design**	Assignments	**15 hours**

- **Topics:**
  - Design Portfolio Development: Learning how to curate a strong design portfolio showcasing design skills and creative process.
  - Mockup Techniques: Creating mockups in Photoshop to present design concepts in a professional context.
  - Design Presentation Skills: Developing skills for presenting design work effectively to clients or collaborators.

- Introduction to Design Trends: Understanding current design trends and their application in creative projects.
- Design Ethics & Copyright: Learning about ethical considerations in design (copyright, plagiarism) and best practices.
- Freelancing & Professional Collaboration: Exploring freelance design opportunities and strategies for effective collaboration with clients and other designers.

Module 4	**Professional Portfolio & Design Practices**	Assignment	**10 hours**

- **Topics:**
  - Professional Practices: Explore design ethics, copyright, patents, freelance opportunities, and collaboration strategies with clients and other designers.
  - Design Trends & Future Considerations: Understand current design trends and ethical considerations for applying them.

List of Practical Tasks:

Projects

Level 1:

1. Create a mood board that evokes a specific emotion or theme using visual elements and principles.
2. **Visual Analysis:** Analyze a well-known advertisement or poster. Identify and explain the use of design elements (line, shape, color, typography) and design principles (balance, contrast, hierarchy) within the design.
3. **Typography Experimentation:** Design a poster with a single word as the main focus. Experiment with different fonts, sizes, colors, and text effects to create visual interest and hierarchy.
4. Redesign/Sketch an existing website or advertisement, focusing on improving its visual hierarchy and communication clarity.
5. Analyze a well-known design campaign and explain the visual language strategies employed by the designers.

Level 2:

6. **Advanced Composition with Effects:** Create a visually compelling composition using advanced graphic editing software techniques (layer styles, blending modes, text effects). (Ex. Concept arts, landscapes)
7. **Photo Manipulation Project:** Choose a photograph and manipulate it (using selections, adjustments, filters) to achieve a specific visual style or mood (Ex. vintage, surreal).
8. **Infographic Design:** Design an infographic on a chosen topic. Use data visualization techniques and clear design principles to present information in a visually engaging way.
9. **Social Media Graphic Series:** Develop a series of social media graphics (e.g., Instagram posts) for a fictional brand. Apply design principles to create visually consistent and engaging content.
10. **Brand Identity Development:** Design a logo and brand identity elements (color palette, typography) for a fictional company, following a provided design brief.
11. **Brand Consistency Analysis:** Analyze branding elements from existing successful companies. Evaluate how they maintain visual consistency across various media formats (website, social media, product packaging).
12. **Design Portfolio Creation:** Build a visually engaging online or physical portfolio using Photoshop to showcase your design skills, creative process, and best design work from the course.

- **Targeted Application & Tools that can be used:** This curriculum ensures that students gain a solid foundation in visual language and use digital graphic and photo manipulation software like Adobe Photoshop, progressing from basic skills to the creation of all the Brand Identity Elements, posters, banners, magazines, photo editing, compositions, creating web graphics, and more by the end of the semester image editing, manipulation, and raster graphics creation.

Text Books –

1. Dabner, D. (2018). Graphic Design School: A Foundation Course for Visual Communication (3rd ed.). Laurence King Publishing.
2. Evening, M. (2020). Photoshop for Designers: The Ultimate Guide to Mastering Photoshop Techniques (7th ed.). John Wiley & Sons.
3. Lupton, E. (2014). Thinking with Type: A Critical Guide for Designers, Writers, Artists, and Everyone Else (3rd ed.). Princeton Architectural Press.
4. Williams, R. (2015). The Non-Designer's Design Book: The Graphic Design School You Never Had (4th ed.). Peachpit Press.
5. Saethre, D. (2014). Photoshop Masking & Compositing: A Complete Guide to Advanced Techniques (2nd ed.). Focal Press.
6. Connie Malamed-Visual Language for Designers: Principles for Creating Graphics that People Understand
7. Ellen Lupton "Graphic Design: The New Basics: Second Edition, Revised and Expanded"
   Princeton Architectural Press; Revised and updated edition
8. Gail Anderson. Gaile Anderson (Author), Steven Heller (Author) THE GRAPHIC DESIGN IDEA BOOK
9. John Evans. Katrin Straub (Author) Adobe Photoshop Elements 2018 Classroom in a Book
10. Ernest Woodruff. Adobe Photoshop for Beginners 2021: A Complete Step by Step Pictorial Guide for Beginners with Tips & Tricks to Learn and Master All New Features in Adobe ... Adobe Photoshop 2021 User Guide Book 1)

References:

1. https://www.youtube.com/watch?v=GHIl0gCeHjk – **Series** for Graphics and Visual – Design Course Introduction | 00 | The Language of Design: Form and Meaning | Beginner | English | UI Course
2. https://www.youtube.com/watch?v=yt7qDQZree0&list=PLW-zSkCnZ-gB0RgkvF0NaN-dreQS1DsxB&index=1 – Advanced Photoshop Tutorials series in Hindi
3. https://www.youtube.com/watch?v=DPSs1IxiDsM&list=PL9pkETrdJ0rb-BsDHwE0gmsj0duEXqbQ3 - Advanced Photoshop Tutorials series in English

Topics relevant to "EMPLOYABILITY SKILLS":

Brand Identity Elements, Letter Heads, Designing Brochures, Visiting Cards, Posters, Mock ups etc., for developing **Employability Skills** through **Experiential Learning Techniques.** This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Mr. Vijay Kumar D Asst. Prof. Multimedia SOD
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM1014 -Preproduction and Pipelines for Multimedia

Course Code: BSM1014	**Course Title: Pre-production and Pipelines for Multimedia** **Type of Course: 1] School Core** **2] Integrated**	**L-T-P-C**	2	0	4	4
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course offers a comprehensive introduction to the pre-production phase of animation and filmmaking. Students will gain a deep understanding of the pipeline process, the various stages that work together to bring a project from concept to screen. The course also equips students with the essential skills including story and scriptwriting, storyboarding for visualization, and character visualization techniques that bring characters to life. Also, students will explore the role of the art department in creating the visual world of an animation or film.					
Course Outcomes	On successful completion of the course the students shall be able to: **Theory Component** • Demonstrate the essential stages of the animation pre-production process. **Practical Component** • Develop skills in concept development, storyboarding, character design, and set Design. • Practice Collaborating effectively in team settings and managing assets for the Production.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Pre-Production and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Content:	Screen Writing**,** Concept Art and Story Sketches, Story Board.					
Module 1	Screen Writing Concept Art and Storyboard	Assignment Documentation		**20 Hours**		
	Topics: Anatomy of a Script, Script Elements and Scene Heading, Action, Characters. Dialogue - Parenthetical - Extension - Transition - Shots - Page Breaking, Finer Points, Dual Dialogue					

	Reading Scripts from Popular - Anatomy of a Storyboard - Advantages of Storyboard in Animation -Thumbnail for Storyboard				
Module 2		Character Development and Cast Selection	Assignment Documentation		**20 Hours**
	Topics: Research - Principles of character design- Creating character rough Sketches - Characterization - Selection of Cast People and considerations - Developing character backstories and motivations - Working with actors during pre-production - Rehearsals - Budgeting and Scheduling				
Module 3		Production Pipelines and Art Department	Assignment Documentation		**20 Hours**
	Topics: Different types of pipelines (2D, 3D, hybrid) - Overview of the production process (pre-production, production, post-production) - Role of the pipeline in production - Introduction to the Art Department - Basics of set design and construction - Understanding the art department's role in the production pipeline – Workflow in Art department				
	List of Practical Tasks: **Project** **Level 1:** • Writing a script and narration (classroom presentation) • Comparative study and presentation of Productions involved in Animation and Film making • Character design with suitable pros with justification **Level 2:** • Storyboard, Scene wise presentation with proper sketches for a Scene				
	• **Targeted Application & Tools that can be used:** This curriculum ensures that students gain a solid foundation in pre-production and pipelines in multimedia. It requires a diverse toolbox. Storyboarding software like Toon Boom Storyboard or free options like Pencil2D help visualize ideas. Project management platforms like Trello or Asana keep teams organized. Scriptwriting tools like Final Draft or Celtx ensure cohesive narratives.				
	Text Books 1. The Animation Bible: A Practical Guide to the Art of Animating from Flipbooks to Flash [Paperback], Maureen Furniss 2. Drawn to Life: 20 Golden Years of Disney Master Classes: Volume 1: The Walt Stanchfield Lectures [Paperback], Walt Stanchfield				

	References 4. Facial Expressions: A Visual Reference for Artists, Mark Simon, Publisher: Watson-Guptill, ISBN-10: 0823016714, ISBN-13: 978-082301671 5. The Visual Display of Quantitative Information, 2nd edition by Edward R. Tufte (Hardcover - May 2001) 6. Renee Dunlop, ***Production Pipeline Fundamentals for Film and Games*** - Focal Press 7. Dream Worlds: Production Design for Animation by Hans Bacher and Don Hahn
	Topics relevant to "SKILL DEVELOPMENT SKILLS": Script writing, Story board Sketching, Camera Shots and Angles for developing **"Skill Development"** through "**Experiential Learning"** Techniques. This is attained through Creation of Storyboard assessment components mentioned in course handout.

Catalogue prepared by		Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM1005: Introduction to Character Sketching

Course Code: BSM1005	**Course Title: Introduction to Character Sketching** **Type of Course: 1] School Core** **2] Integrated**	**L-T-P-C**	1	0	4	3
Version No.	2.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course equips students with the foundational skills for sketching compelling characters. Explore character anatomy, form, and gesture. Understanding the usage of basic stationary items to develop the skills of different shades using pencils, human anatomy to develop the characters. Learn to translate emotions and personality through facial expressions and body language. Mastering various sketching techniques to bring characters to life, all while building a solid foundation for further character development.					
Course Objective	The course's objective is to develop the right foundation for character sketching for student Skill Development by using Experiential Learning techniques.					
Course Outcomes	On successful Completion of this course students shall able to **Theory Component:** 1. **Understand** the art of pencil drawing and sketching. **Practical Component:** 2. **Explore** the dynamic feature of using pencils 3. **Illustrate** and present any Characters with dimensional value and realistic feel.					
Course Content:	Introduction Functionality & management application,					
Module 1	Introduction	Assignment Documentation	**11 Hours**			
Topics: Scale of drawing, theory of linear perspective, setup a view, contour line drawing, tone and texture, Importance of character sketching in multimedia and storytelling-Basic Drawing Techniques, Understanding lines, shapes, and forms, Practicing basic drawing exercises-Anatomy Basics, Proportions and structure of the human body, Drawing basic human figures and poses-Drawing-Capturing motion and fluidity in sketches ,Quick sketching exercises to develop gestural skills						

Module 2	Intuitive perspective, Developing Character Design	Assignment Documentation	**12 Hours**

Topics:

Dynamic views, concept sketching, narrative sketching, shooting boards, Exploring Different Styles-Introduction to various character design styles (realistic, cartoon, stylized),Experimenting with different drawing styles, Facial Expressions and Emotions-Drawing facial features and expressions, Conveying emotions through character sketches, Designing Unique Characters-Creating original characters from imagination, Developing character backstories and personalities- Clothing and Accessories-Designing costumes and accessories for characters, Understanding how clothing affects character design

Module 3	Character Sketching	Assignment Documentation	**9 Hours**

Topics:

Introduction to Human Anatomy, Facial Expressions, Gesture study of Human and

Animals.

Dynamic Poses and Action- Drawing characters in dynamic poses, Understanding action lines and movement, Inking and Shading Techniques-Introduction to inking character sketches, Adding shading and textures for depth, Digital Character Sketching, Overview of digital sketching tools (Adobe Photoshop, Procreate),Techniques for digital character creation, Final Project and Critique-Creating a complete character design portfolio, Peer reviews and constructive feedback, Final presentation of character sketches

List of Practical Tasks:

Level 1:

1. Lines, strokes & shapes with freehand

2. Form and shape

3: Live sketching

4: Gesture drawing

5: Perspective drawing

6: City Scape drawing

Level 2:

7: Male & female anatomy

8: Facial Expressions

Targeted Application & Tools that can be used:

A number of programs and resources are essential for creating & perfecting character designs in the introduction to Character Sketching course. The foundation for fundamental sketching methods & creativity is laid by conventional equipment like pencils, pens, & sketchpads. Programs like Corel painter & Adobe Photoshop provide sophisticated brushes & customization features for digital sketching, making the process more enjoyable. With the help if these resources, students can try out various approaches & styles, making it easier to create intricate & compelling character sketches.

Text Books

1. Freehand and Digital Drawing techniques for Artists & Designers - Jorge Paricio
2. Hartley, C. (2012). Drawing Cutting Edge Characters: From Sketch to Screen. Watson-Guptill Publications.
3. Keefe, D. (2009). How to Draw People: Everything You Need to Know to Create Realistic Figures. Walter Foster Jr.
4. Lesnes, J. (2011). Character Design from the Ground Up: Creating Characters with Personality. Watson-Guptill Publications.
5. Loomis, A. (2014). Figure Drawing for All It's Worth. Dover Publications. (Original work published 1943)
6. Watts, D. (2013). The Art of Drawing People. Watson-Guptill Publications

References

1. Freehand and Digital Drawing techniques for Artists & Designers Jorge Paricio
2. https://youtu.be/ewMksAbgdBI - Sketching Basics & Materials
3. https://youtu.be/-WR-FyUQc6I – Shade with Pencils
4. https://youtu.be/5W3Wj-a_7Vo - Drawing faces

Topics relevant to "SKILL DEVELOPMENT SKILLS":

Theory of Lines, strokes & shapes with freehand, Gesture drawing, Concept Sketching for developing "Skill Development" through "Experiential Learning" Techniques. This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Melwin Samuel, Vijay Kumar. D & Prakash. KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	6th Board of Studies held on 26th of July 2022
Date of Approval by the Academic Council	18th Academic Council meeting held on 3rd August 2022

BSM1011 - Elements and Principles of Design

<table>
<tr><td>Course Code:
BSM1011</td><td colspan="3">Course Title: Elements and Principles of Design

Type of Course: 1] School Core
2] Integrated</td><td>L-
T-
P-C</td><td>2</td><td>0</td><td>4</td><td>4</td></tr>
<tr><td>Version No.</td><td colspan="8">1.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="8">Nil</td></tr>
<tr><td>Anti-requisites</td><td colspan="8">NIL</td></tr>
<tr><td>Course Description</td><td colspan="8">The course's objective is to provide an understanding of the basics of visual design to the student. Introduce students to the standards, practices and techniques of cinematography. Develop students' ability to manipulate cameras to achieve specific stylistic and dramatic effects. The course equips them to be able to analyze various types of forms, spaces, semantics and explore complex patterns. The students will learn and understand the Elements and principles of Design principles including visual hierarchy. The students will be able to develop an interest in the research and development of more effective visual communication designs which in the long run will translate into their applications in the design industry.</td></tr>
<tr><td>Course Objective</td><td colspan="8">The objective of the course is <u>Skill Development</u> of student by using <u>Experiential Learning</u> techniques.</td></tr>
<tr><td>Course Outcomes</td><td colspan="8">On successful Completion of this course students shall able to
Theory Component:
4. Identify and define various terminologies associated with visual design.
Practical Component:
5. Examine the different approaches towards visual design elements.
6. Design various complex and meta patterns.</td></tr>
<tr><td>Course Content:</td><td colspan="8">Fundamentals of Design, Elements of Visual Design, Design Thinking, Understanding Aesthetics</td></tr>
<tr><td>Module 1</td><td colspan="2">Fundamentals of Design</td><td colspan="2">Assignment Documentation</td><td colspan="4">15 Hours</td></tr>
<tr><td colspan="9">Topics:
The Visual Design Basics
Terminologies used in Visual Design
Visual Elements
Understanding Aesthetics
Analysis of Aesthetics,
Exploration of Meta-patterns
Creations of Meta-patterns</td></tr>
</table>

Module 2	Elements of Visual Design	Assignment Documentation	**14 Hours**

Topics:

Visual Principles

Analysis of Visual Concepts

Tessellations and their variations

Basic Shapes

Shadows and Light

The process of adding aesthetics to your design.

Introduction to colors

Module 3	Design Thinking	Assignment Documentation	**16 Hours**

Topics:

Meaning and usage of colors

Color Wheel

Introduction to Typography

Body texts, Fonts & Text sizes

Composition and Framing

Using Space, lines, shapes to Construct

Symbols and their usage in the Scene

Introduction to Perspectives

One-point Perspective

Two-point Perspective

Different types of Angles.

Mise-en-scene

Creation of Entire Scene

List of Practical Tasks: Level 1

1: Design Thinking Principles

2: Setting up the Observation process

3: Create a Design using Basic elements

4: Sketch in Different Perspectives of City Scape

5: How to Tell a Story

List of Practical Tasks: Level 2

6: Create a set of Scenarios for the story

7: Typography in design

8: Create a Small poster for awareness program using design elements

Assignment:

Create a Design using basic elements like textures, lines, shapes etc., in a creative way.

Targeted Application & Tools that can be used:

A number of essential programs and tools are necessary for comprehending and utilizing fundamental design concepts in the course Elements & Principles of Design. Color, line, shape, texture, and form manipulation require the use of the Adobe Creative Suite, in particular Photoshop, Illustrator, and InDesign. Canva is an approachable platform for novices, providing easily navigable design templates and instruments to hone composition and arrangement skills. With their powerful features for producing and enhancing visual designs and prototypes, Sketch and Figma are useful tools for digital and interface design. With the aid of these resources, students can effectively investigate and apply basic design principles to a variety of projects and media.

Text Books

- Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd.
- IdrisMootee, Design Thinking for Strategic Innovation,2013, John Wiley & Sons Inc

References

5. Brenda Laurel Design Research methods and perspectives MIT press 2003
6. Terwiesch, C. & Ulrich, K.T., 2009. Innovation Tournaments: creating and identifying Exceptional Opportunities, Harvard business press.
7. Ulrich &Eppinger, Product Design and Development, 3rd Edition, McGraw Hill, 2004
8. Stuart Pugh, Total Design: Integrated Methods for Successful Product Engineering, BjarkiHallgrimsson, Prototyping and model making for product design, 2012, Laurence King Publishing Ltd
9. Kevin Henry, Drawing for Product designers, 2012, Laurence King Publishing Ltd

Topics relevant to "SKILL DEVELOPMENT SKILLS":

Typography, Composition, Framing of Subjects for developing **"Skill Development"** through **Experiential Learning** Techniques. This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	4th Board of Studies held on 10th of July 2021
Date of Approval by the Academic Council	16th Academic Council Meeting held on 23rd October 2021

Course Code: BSM1010	Course Title: Observation & Ideation Type of Course: 1] Program Core 2] Integrated	L-T-P-C	1	0	2	2
Version No.	1.0					
Course Pre-requisites	NIL					
Anti-requisites	NIL					
Course Description	To increase the Observation Skills of the Students and increase the logical thinking behind each observation This course will help students to develop keen observation skills in different levels of the given situation. Adaptation and conversion of those to ideas and documenting them for further research. This course is designed to be very observant not only the physical attributes but also the inner of the given object or situation and the idea behind its existence.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Observation and Ideation and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Outcomes	On successful completion of the course the students shall be able to: **Theory Component:** 1. Relate the given design structure with its initial idea. **Practical Component:** 2. Recognize the need of the given design structure in the society and its usage to its full potential. 3. Apply the cultural background from where the design structure initially originated.					
Course Content:	Identification of Design, Sustainability design Practice, Reproduction of Design and its features, Analysis of the Design Production .					

Module 1	Identification of Design	Observation report	Illustrations/ photographs Visual Journal	10 Hours
Topics: 1. Recognition of basic designs around us natural or manmade. Identification of texture colour size and other physical attributes of the design. 2. Recognition of social importance of the given Design Structure. Review the impact of the physical design structure in the society. 3. Generating ideas and solutions through sessions such as Sketching, Prototyping, Brainstorming,				
Module 2	Sustainability design Practice, Reproduction of Design and its features	Documentation	Info-graphical development Visual Journal	15 Hours
Topics: 1. Introduction to Design Thinking and Its Stages. 2. Introduction to Modes and Stages of Ideations 3. Conceptualizing design starting from Worst Possible Ideas and Improving to the State to acceptance in the Society				
Module 3	Analysis of the Design Production	Assignment Documentation	Visual Journal Development of Documentation of the individual design	20 Hours
Topics: 1. Character required for the design Ideation 2. Using the technique of empathy mapping for Design Thinking 3. Hierarchy Needs and table of Design thinking and Design Creation 4. Development of ideation for a given Design structure				

List of Practical Tasks: Level1

Project No. 1: Recognition and Observation

Level 1: Recognizing the Characters of the Design and Documenting the same through Phrases and Words and Photographs

Level 2: Identification of the Characteristics and copying through Sketching the same with Perspective

Level 3: Transcending the Design to other styles of Sketches, experimenting with different colour medium

Project No. 2:

Level 1: Exploring the stages in a given Design Structure

Level 2: Exploded View of the given Design or an object

Level 3: Improvisation on the design for personalization.

List of Practical Tasks: Level2

Project No. 3:

Level 1: Analyzing the design Structure through its character Study.

Level 2: Applying the Empathy mapping for the design where ever needed and improvising the idea.

Level 3: Development of new Parameters to create Improvised designs and exploring the designs.

Targeted Application & Tools that can be used

Evernote and Notion are crucial for recording and organizing observations and ideas, while Miro and MURAL help with brainstorming and visual cooperation in observation and ideation. Quick concept visualization is made possible by sketching applications like Procreate and Adobe Fresco, while idea development and organization are facilitated by mind mapping programs like Mind Meister. With the help of these apps, students can more successfully observe, record, and hone their original ideas, leading to creative design solutions.

Text Books

1. Steal Like an Artist – Austin Kleon, February 2012.
2. The Birth and Death of Ideas Hardcover – Import, 11 May 2004 by Douglas Graham (Author), Thomas T. Bachmann (Author)

References

1. FIRE: How Fast, Inexpensive, Restrained, and Elegant Methods Ignite Innovation Hardcover – April 29, 2014.
2. https://www.youtube.com/watch?v=scvb05qEN0s Design Observations

Topics relevant to "SKILL DEVELOPMENT": Character required for the design Ideation, Generating ideas and solutions through sessions such as Sketching, Prototyping, Brainstorming for **Skill Development** through **Experiential Learning** techniques. This is attained through assessment component mentioned in course handout.	
Catalogue prepared by Dr. Saranya Balan Asst. Professor Multimedia, School of Design	
Recommended by the Board of Studies on	8th Board of Studies held on 7th of July 2023
Date of Approval by the Academic Council	21st AC Meeting held on 6th SEPT 2023

BSM 2001 Introduction to 2D Animation

Course Code: BSM2001	**Course Title: Introduction to 2D Animation** **Type of Course: Program Core, Integrated**	**L-T-P-C**	1	0	4	3
Version No.	3.0					
Course Pre-requisites	NA					
Anti-requisites	**NIL**					
Course Description	Basics of Animation is a foundation course in animation. This course covers 12 animation principles, which will serve as a foundation for animation education. In this course, the focus is on 2d classical animation, flip-book animation, stop motion, and 2d animation using different techniques to impart fundamentals of movement in the animation. This course will also give an overview of different animation techniques in various software like Adobe After Effects, adobe animate and etc.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Basics of Animation and Tools and attain Employability through Experiential Learning techniques.					
Course Outcomes	Upon successful completion of the course, the students shall be able to: 1. **Describe** the principles of animation, including squash and stretch, anticipation, and timing. **Practical Component** 1. **Explain** how the principles of animation contribute to creating realistic and visually engaging animations. 2. **Practice** simple animations that demonstrate the principles of squash and stretch, anticipation, and timing.					

Course Content:				
Module 1	Introduction of Animation	Assignment Demonstration and Participative Learning. Documentation	Examples/ Demo/Assignments	**10 Hours**

Topics:

1. 12 Principles of Animation
- Squash and Stretch
- Anticipation
- Staging
- Straight Ahead Action and Pose to Pose
- Follow Through and Overlapping Action
- Slow In and Slow Out
- Arcs
- Secondary Action
- Timing
- Exaggeration
- Solid Drawing

- Appeal

Module 2	Study of Animation	Assignment Demonstration and Participative Learning. Documentation	Examples/ Demo/Assignments	**10 Hours**

Topics:

- Study of Zoetrope
- Stop Motion Animation
- Flipbook Animation

Module 3	Introduction to Software	Assignment Demonstration and Participative Learning. Documentation	Examples/ Demo/Assignments	**25 Hours**

- Introduction to 2D Animation
- Walk Cycle
- Jump Cycle

List of Practical Tasks:

Project No. 1

Level 1: Create an animation for each principle of animation.

Level 2: Create an animation for each principle of animation using the keyframe animation technique.

Project No. 2:

Level 1: Understand the classical way of animation and create a zoetrope card in 2d animation.

Level 2: Create a video clip of an animal walk with the technique mentioned above.

Project No. 3:

Level 1: Understand the walk cycle.

Level 2: Create a video clip of a human walking.

Targeted Applications & Tools that can be used:

1. Create a video clip with an animal from the learning of level 1
2. Tools used Adobe Photoshop, 2d Animation Software

Topics relevant to "SKILL DEVELOPMENT SKILLS":

12 Principles of Animation, Study of Animation and Working on Animation Software for **Skill Development** through **Experiential Learning** Techniques. This is attained through the assessment component mentioned in the course handout.

References

Alan Becker Channel
Cartoon Smart Channel
12 Principles of Animation
Flipbook Animation
Zoetrope Animation
Stop motion Animation

Textbook

- The Animator's Survival Kit" by Richard Williams
- Animation: From Script to Screen" by Shamus Culhane
- Timing for Animation" by Harold Whitaker and John Halas

Catalogue prepared by	Name: Mr. Karthik Manokaran Designation: Assistant Professor School of Design
Recommended by the Board of Studies on	4th Board of Studies held on 10th of August 2021
Date of Approval by the Academic Council	16th Academic Council Meeting held on 23rd October 2021

BSM 2058 Photography

Course Code: BSM2058	**Course Title: Photography** **Type of Course:** **1] Program Core** **2] Integrated**	**L-T-P-C**	1	0	4	3

Version No.		1.0
Course Pre-requisites		**Nil**
Anti-requisites		**NIL**
Course Description		This course will impart skills on the process of digital photography and its techniques. Learn how a camera works and develop advanced techniques. Learn fundamental concepts, techniques, and practices essential for capturing high-quality images. Demonstrate the ability to use photography as means of communication and creative expression.
Course Outcomes		On successful completion of the course the students shall be able to: **Theory Component:** 1. **Understand** the practical exposure to handle camera functions and lighting techniques. **Practical Component:** 2. **Study** the image making skills in indoor and outdoor conditions, 3. **Explore** the techniques and aesthetics in photography.
Course Objective		The objective of the course is to familiarize the learners with the concepts of Photography and attain Skill **Development** of student by using **Experiential Learning** techniques.
Course Content:		Basics of Photography**,** Photography Lighting and Lenses, Types of Photography.

Module 1	Basics of Photography	Assignment Documentation		**15 Hours**
	Topics: History and evolution of photography - Overview of different types of cameras (DSLR, mirrorless, point-and-shoot, smartphone) - Basic components of a camera - Shutter speed, High and low Shutter speed Images. Aperture, Deep Depth of field and Shallow depth of field images. ISO, High and low sensitive images, Golden Triangle (Exposure Triangle) Working of DSLR - Principles of Composition Rule of thirds, leading lines, framing, symmetry			
Module 2	Photography Lighting techniques and Lenses	Assignment Documentation		**15 Hours**

	Topics: Natural light vs. artificial light - Direction, quality, and color of light -Using reflectors and diffusers- Types of lenses and their uses (prime, zoom, wide-angle, telephoto, macro) - Essential accessories (tripods, filters, external flashes) - Care and maintenance of equipment - Lens properties: Photographic lens mechanism and structure			
Module 3	Types of Photography	Assignment Documentation		**15 Hours**
	Topics: Nature Photography, Product Photography, Portraiture, Fashion Photography, Sports and Action Photography, Architecture Photography, Landscape Photography (golden hour, blue hour), Travel Photography, Wildlife Photography.			
	List of Practical Tasks: **Project** **Level 1:** • Understanding DSLR Anatomy and exposure techniques of a DSLR camera. • Hands-on practice with camera settings and experimenting with different lenses and accessories used in Photography. **Level 2:** • Practicing different types of Photography in the Lab Sessions. • Capturing Photographs on Each Genre and Submitting it by a proper Print.			
	Targeted Application & Tools that can be used DSLRs and mirrorless cameras are crucial equipment for taking high-quality pictures in photography, and Photoshop and Lightroom are necessary for photo editing and enhancement. Editing on the go is made easier with mobile apps like Snapseed and VSCO. In addition, tools like reflectors, tripods, and external flashes are essential for producing professional-caliber images in a variety of shooting scenarios. **Text Books** 3. Understanding Digital Photography by Joseph A. Iippolito, Thomson Delmar Learning, 2003.USA 4. Digital Portrait Photography and Lighting: Take Memorable Shots Every Time 2005. By Catherine 5. The Digital Photography Handbook: An Illustrated Step-by-step Guide by Doug Harman			

	References 8. Photography for Everyone : The Cultural Lives of Cameras and Consumers in Early Twentieth-Century Japan https://puniversity.informaticsglobal.com:2282/ehost/detail/detail?vid=4&sid=930c9c96-c032-49dc-8911-dea24061220d%40redis&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=987073&db=nlebk 9. Photography Ingledew, John, Gullachsen, Lorentz https://puniversity.informaticsglobal.com:2282/ehost/detail/detail?vid=5&sid=930c9c96-c032-49dc-8911-dea24061220d%40redis&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d##AN=926169&db=nlebk 10. Photography and Landscape : Photography and Landscape https://puniversity.informaticsglobal.com:2282/ehost/detail/detail?vid=7&sid=930c9c96-c032-49dc-8911-dea24061220d%40redis&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=1135701&db=nlebk
	Topics relevant to "SKILL DEVELOPMENT SKILLS": Types of Lighting, Working of DSLR, Anatomy of DSLR, Types of Lenses etc., for developing **"Skill Development"** through **Experiential Learning** Techniques. This is attained through assignment components mentioned in course handout.

Catalogue prepared by		Mr. Melwin Samuel. R Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM2020 – UI/UX Design

Course Code: BSM2020	**Course Title: UI/UX Design** **Type of Course: 1] Discipline Elective** **2] Integrated**	**L-T-P-C**	1	0	4
Version No.	1.0				
Course Pre-requisites	**Nil**				
Anti-requisites	**NIL**				
Course Description	This course will offer Students to Work with a range of User interface and User Experi concepts also will Make the students to Become a successful UI &UX Designer. Introduce students to the standards, practices and techniques of UI & UX Design. Develop students' ability to create high quality UI & UX wireframes and Prototypes. This Module provides both skills-based training in the basic principles and practice of Interface and User experience Design for machines and software, such as mobile devices, H Appliances, computers and other electronics devices. Students will be exposed to the demands and possibilities of working with user and task ana information Architecture, Wireframing, Prototyping, Usability Inspection and Usability Testir Students will be encouraged to work with their own created Wireframes and Prototypes.				
Course Objective	This Objective of the course is to familiarize the learners with the concepts of UI/UX Desigr attain **Employability Skills** by using **Experiential Learning** techniques				
Course Outcomes	On successful Completion of this course students shall be able to Theory Component: 1. **Understand** the Definition and Principles of User Interface (UI) and User experience (UX) Design to design with intention also they will learn the concepts of Human -Computer Interaction (HCI) and the Psychology behir user decision making. Practical Component: 2. **Develop** a deep understanding of entire "life cycle of design, the process, Purpose and Tools ". 3. **Utilize** the industry slandered tools and Specific Project Deliverables in UI UX.				
Course Content:	Introduction to UI &UX Design, UI & UX Design Fundamentals, UI & UX Design Fundamental.				
Module 1	Introduction to UI &UX Design	Assignment Documentation	**15 Hours**		

Topics:
Color: color Harmonies -creating contrast with color, Typography & Fonts: Display Text (Such as Headi versus Body Text, Legibility, Type Trends, typeface selection and pairing, Ideal Line Height, Column W (Line Length), Hyphenation & Justification. Design elements and Principles, User Experience, Trends in Mental Model, Elements used in User experience Design, Big Picture, 6 Stages of Design in UX, Heur Evaluation for UX Design- Introduction to User research- Design Thinking- Information Architecture.

Module 2	UI & UX Design Fundamentals	Assignment Documentation	**14 Hours**

Topics:

UX Design Fundamentals: Knowing your User, structure and Conducting user interviews to better Identif the needs and current behavior of the user, Creating and Refining interview Questions for users, Engaging user in design Process, Synthesis of User research, Creating Journey Maps and User flows.
UX Design Stages: Requirement gathering- Research of Various Techniques- Analysis- Creating Scenarios Flow Diagrams.

UI Design Fundamentals: Menus, Tabs, Bottom Tab Bar, Buttons (including call to action or CTA), Accord Carousel, Breadcrumbs, Modals, Forms

Wireframing & Prototyping: practice sketching session for existing website or mobile applications, Sk wire frames for websites and Applications, understand the different methods of Prototyping, Prototype inclu newly discovered user goals, business needs and improved Functionality. User Testing with reports.

Module 3	Understanding Adobe XD and Figma Software's	Assignment Documentation	**16 Hours**

Topics:

Create Visual Design & Clickable Prototypes for websites, Mobile Applications and Touch Screen panels.

Introduction to Adobe XD and Figma software, Layout and Interfaces in Adobe XD and Figma. Role of a UI & UX Desi

List of Practical Tasks:

Level1:

1. create an Interactive Blog of your choice
2. Create a website of your choice
3. create a Mobile Application of your choice
4. Create an Interactive Touch screen Display Panel for any Business Organization.

Level 2:

1. Create an Interactive Touch screen Display Panel for any Business Organization with at least 3 Unique Creative Idea.
2. Create a website of your choice with at least 3 Unique and Creative Idea.
3. Create a Mobile Application of your choice with at least 3 Unique and Creative Idea.

Text Books

- Don Norman, The Design of Everyday things,2013, ISBN no **978-0465050659.**
- Joel Marsh, UX For Beginners: A Crash course in 100 short lessons, 2016,Oreilly publications.

Targeted Applications and Tools can be used

In UI/UX Design, tools like sketch, Figma and Adobe XD are essential for wireframing, prototyping, and creating interfaces. Platforms like Invision and Usability hub facilitate user testing and feedback, while Miro sup brainstorming and mapping user journeys. These tools collectively enable the development of intuitive and enga UI/UX Designs.

References

10. https://www.eleken.co/blog-posts/ui-ux-books
11. https://www.youtube.com/watch?v=c9Wg6Cb_YlU - Wireframe, Mockups and Design in Figma Software.
12. https://www.youtube.com/watch?v=kbZejnPXyLM&list=PLttcEXjN1UcHu4tCUSNhhuQ4riGAR – Figma UI &UX Essentials
13. https://www.youtube.com/watch?v=f2K1jmjj5pM&list=PLttcEXjN1UcHbhOF4J99QKUiOqt9ETg – Adobe XD Essential Guide for UI &UX.

Topics relevant to "EMPLOYABILITY SKILLS":

UI Design Fundamentals: Menus, Tabs, Bottom Tab Bar, Buttons (including call to action or CTA), Accor Carousel, Breadcrumbs, Modals, Forms for developing **Employability Skills** through **Experiential Lear** techniques. This is attained through the assessment component mentioned in the course handout.

Catalogue prepared by	Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	4th Board of Studies held on 10th of August 2021

Date of Approval by the Academic Council	16th Academic Council Meeting held on 23rd October 2021

BSM2059 – Advertising and Public Relation

Course Code: BSM2059	**Course Title: Advertising and Public Relation** **Type of Course:** **1]Discipline Elective** **2]Integrated**	**L-T-P-C**	2	0	2	3
Version No.	1.0					
Course Pre-requisites	**Visual Design (BSM 1003)**					
Anti-requisites	**NIL**					
Course Description	The course will dwell upon the role and scope of Public Relations (PR) in management, its various tools and emerging importance. It also looks into the evolution of PR and its expanded role in organizational and marketing communication. The course also introduces the concepts and principles of Advertising, role of Ad agency. This course will help in understanding the Fundamentals and functioning of Advertising and media. The strategic and creative processes involved in creating successful advertising campaigns and overseeing public relations initiatives will be examined by the students.					
Course Outcomes	On successful completion of the course the students shall be able to: **Theory Component:** 1. **Identify** the meaning, concept, and tools of Advertising and Public Relations. **Practical Component:** 2. **Discuss** the role and importance of advertising in society. 3. **Interpret** organizational workflow of Advertising Agency. 4.					
Course Objective	This objective of the course is to familiarize the learners with the concepts of Advertising and Public Relation and attain **Skill Developed** by using **Experiential Learning** techniques.					
Course Content:	Classification and aspects of Advertisements, Tools and Techniques of Advertisement , Public Relations ,Principles of Advertisements, Scripting for Tv and Radio Advertisements, Media Planning.					

Module 1	**Classification and aspects of Advertisements**	Assignment: Students will be asked to collect the various advertisement tools.	**15 Hours**

Topics:

Advertising Definition, meaning and concept, Nature and Scope of Advertising in modern society, Classification of Advertising, Elements of Advertising, Organizational structure of an advertising agency, Types of advertising agencies Advertising appeals, SWOT Analysis, Target Audience, Feedback, PSA (Public Service Announcement). Basics of consumer behavior - The decision-making process factors for buyers

Module 2	**Tools and Techniques of Advertisement**	Assignment: Pamphlets, banners	**15 Hours**

Topics:

Print Advertisement - Digital Advertising, Types of TV commercials, Script for Commercials, Concept Creation, Media Planning - Production Crew, Cost Analysis, Special Talents, Production Procedure, Schedule, Post Production, Audio, Musical.

Module 3	**Public Relations**	Assignment	**15 Hours**

Topics:

Meaning, Definition, and concept of Public Relation, Objective of Public Relation, Advertising campaigns, Advertising research, Media selection, Media planning strategies, history and Growth of PR in India- Strategies for Social Media marketing.

List of Practical Tasks: Level1

1. Create a comprehensive PR campaign plan for a product launch, including press releases, media pitches, and social media strategy.
2. Plan, schedule, and execute a week-long social media content calendar for a brand.
3. Perform a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) for a company's current advertising and PR efforts.

List of Practical Tasks: Level2

4. Write a press release for a fictional event or product launch, ensuring it follows industry standards and is newsworthy.
5. Develop a crisis communication plan for a hypothetical PR crisis, including key messages, spokesperson training, and media response strategies.
6. Assemble a media kit for a company or brand, including a press release, company backgrounder, executive bios, and product information.

Targeted Application & Tools that can be used

Essential tools in public relations and advertising include Hootsuite for social media campaign management and the Adobe Creative Suite for designing ads. For media analytics and monitoring, PR management solutions such as Cision and Meltwater are essential. Furthermore, resources like Google Analytics and SEMrush offer insights into audience engagement and campaign performance, empowering students to create successful advertising campaigns and handle public relations initiatives effectively.

Text Books

1. Donald W. Jugenheimer, Larry D. Kelley, Jerry Hudson, Samuel Bradley Advertising and Public Relations Research, Routledge, 2014),

References

1. Ramli, F. A. A., Samat, M. F. Factors contributing the effectiveness in public relation practices. Advances in Business Research International Journal, 4(1), 27-34.(2020).
2. Brotojoyo, E., Purwantini, V. T. Analysis of Advertising, Sales Promotion, and Public Relation on Coffe Purchasing decisions in The Sragen Coffe Garage During the Covid-19 Pandemic. Journal of Indonesian Science Economic Research, 2(5), 1724.(2020).
3. Lee, H., Cho, C. H. Digital advertising: present and future prospects. International Journal of Advertising, 39(3), 332-341.(2020).
4. Guseva, O. V., Khatynova, L. T. How does image advertising work? (1), 160-163.(2019).
5. Mann, Evelyn P Advertising: Types, Trends, and Controversies, (2012)

Video Lectures

1. MOOC on Advertising and Public Relations https://www.youtube.com/watch?v=emXpYiFkoT8&t=10s
2. Introduction to Public Relations https://www.youtube.com/watch?v=SeSKikrDPas
3. Advertising, Sales Promotion, and Public Relations Part 1 https://www.youtube.com/watch?v=0C6Kkbq vXA
4. Advertising, Sales Promotion, and Public Relations Part 2 https://www.youtube.com/watch?v=sWPNsaRUtOE

Topics relevant to "SKILL DEVELOPMENT":

Classification of Advertising, Organizational Structure of Advertising Agency for **Skill Development** through **Experiential Learning** techniques. This is attained through assessment component mentioned in course handout.

Catalogue prepared by	Mr. Melwin Samuel. R Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM1015– Design Thinking and Communication

Course Code: BSM1015	**Course Title: Design Thinking and Communication** **Type of Course: 1] Discipline Elective** **2] Integrated**	**L-T-P-C**	2	0	2	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	Students pursuing a Bachelor of Science in Multimedia will learn about the concepts and methods of design thinking and how to apply them to effective communication. To develop original answers for pressing issues, students will investigate user-centered design techniques, such as empathy, ideation, prototyping, and testing. To effectively and convincingly communicate ideas, a significant emphasis on written, spoken, and visual communication skills will be developed. Students will gain the ability to incorporate design thinking into their multimedia work through practical projects, group activities, and case studies. This will improve their capacity to create compelling and powerful material for a range of media platforms.					
Course Objective	This Objective of the course is to familiarize the learners with the concepts of Design Thinking and Communication and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Outcomes	On successful Completion of this course students shall be able to Theory Component: 1. **Understand** the concepts of design thinking approaches. Practical Component: 2. **Develop** the students as good designers by imparting creativity and problem -solving ability. 3. **Practice** design thinking skills in the development of innovative prototypes.					
Course Content:	Introduction to Design Thinking, Working with Gestalt principles, Elements and design Principles, Layout and composition, Visualization of data, prototyping and User testing.					

Module 1	INTRODUCTION TO DESIGN THINKING	Assignment Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion	**15 Hours**

Topics:

1. Visual Elements & Design Principles
   Color, line, space, texture, form
   Unity, harmony, balance, hierarchy,
   scale/proportions, dominance
   emphasis, similarity & contrast
   Title and Typography
2. Gestalt Principles Implementation
   Proximity, Similarity, Closure, Good continuation, Common fate, Good Form
3. Layout and Compositions
   Content Compositions
   Grids/Wireframing
4. The power of icon & symbols
   Historical & Cultural Impact of Icons & Symbols
   Icons & Symbols in Art and literature
   Commercial and Marketing use of Icons& Symbols
   Technological and Digital Symbols
5. Introduction to Design thinking - Empathy and user Research – Defining problems -Ideation Techniques

Module 2	THE POWER OF VISUAL STORYTELLING	Assignment Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion	**14 Hours**

Topics:

1. Creative Approaches
   Building design resource team
   Brainstorming
   Formats and Storytelling
   Researching data
2. Visualization Information Methods
   Visual metaphors
   Visualizing Information
   Design Thinking
3. Prototyping Basics
   Low fidelity, High Fidelity
   Tools and Materials for Prototyping

Module 3	INTERACTION DESIGN IMPLEMENTATION	Assignment Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion	**16 Hours**

Topics:

1. Screen casting & Researching
   - Problem solving
   - Planning
   - Workflow
2. Importing media
   - Text, Graphics, Animation, Audio and Video
3. Interactive media (Media Framework)
   - Compositing
   - Navigation techniques
   - Animation & Video elements
4. User Testing
   - usability testing
   - Methods for gathering User feedback
   - Analysing and Identifying areas for Improvement
5. Iteration and Refinement
   - Iterative design process
   - Integrating user feedback into design Revision
   - Preparing final Prototype for Presentation

List of Practical Tasks: Level 1

Exercise 1: Empathy Interviews

Activity: Conduct interviews with potential users about their experiences with a specific product or service. Create a set of open-ended questions and record the responses.

Exercise 2: Journey Mapping

Activity: Choose a common activity (e.g., online shopping) and create a journey map highlighting the user's steps, emotions, and pain points.

Exercise 3: Brainstorming Session

Activity: Organize a brainstorming session using techniques like mind mapping or SCAMPER. Encourage quantity over quality and defer judgment.

Exercise 4: Low-Fidelity Prototyping

Activity: Use paper, cardboard, or simple digital tools to create low-fidelity prototypes of your design ideas. Focus on key functionalities and user interactions.

List of Practical Tasks: Level 2

Exercise 1: Interactive Prototypes

	Activity: Use tools like Adobe XD, Sketch, or Figma to create high-fidelity interactive prototypes. Include key screens and user pathways. **Exercise 2: Usability Testing** **Activity:** Conduct usability testing sessions with at least five users. Observe their interactions, note any issues, and collect feedback.
	Targeted Application & Tools that can be used: In the context of Design Thinking and Communication, various applications and tools are pivotal for fostering creativity, collaboration, and effective communication. Tools like Miro and Lucid chart are excellent for brainstorming, mind mapping, and creating flowcharts, aiding in the ideation, and planning phases. For prototyping, Adobe XD and Figma are widely used to design and test user interfaces and experiences. Communication platforms such as Slack and Microsoft Teams facilitate seamless collaboration and feedback among team members. Additionally, tools like Canva and Adobe Spark are useful for creating visually appealing presentations and marketing materials, ensuring that ideas are communicated clearly and effectively to stakeholders **Text Books** o Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd. o IdrisMootee, Design Thinking for Strategic Innovation,2013, John Wiley & Sons Inc
	References 14. Brenda Laurel Design Research methods and perspectives MIT press 2003 15. Terwiesch, C. & Ulrich, K.T., 2009. Innovation Tournaments: creating and identifying Exceptional Opportunities, Harvard business press. 16. Ulrich &Eppinger, Product Design and Development, 3rd Edition, McGraw Hill, 2004 17. Stuart Pugh, Total Design: Integrated Methods for Successful Product Engineering, BjarkiHallgrimsson, Prototyping and model making for product design, 2012, Laurence King Publishing Ltd 18. Kevin Henry, Drawing for Product designers, 2012, Laurence King Publishing Ltd 19. https://youtu.be/_r0VX-aU_T8 20. https://youtu.be/gHGN6hs2gZY 21. https://youtu.be/_WI3B54m6SU
	Topics relevant to "EMPLOYABILITY SKILLS":

	Visual Elements & Design Principles, Visual Elements & Design Principles, Text, Graphics, Animation, Audio, Video for developing **Skill Development** through **Experiential Learning** techniques. This is attained through the assessment component mentioned in the course handout.

Catalogue prepared by		Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
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BSM2060 – 3D Modeling and Texturing

Course Code: BSM2060	**Course Title: 3D Modeling and Texturing** **Type of Course: 1] Program Core** **2] Integrated**	**L-T-P-C**	1	0	4	3

Version No.	1.0
Course Pre-requisites	**Nil**
Anti-requisites	**NIL**
Course Description	This course equips you with Maya's interface, modelling tools, and texturing basics. Learn to build & manipulate 3D objects, apply textures & materials, and create lighting setups for a polished look.
Course Objective	This Objective of the Course is to familiarize the learners with the concepts of 3D Modelling and Texturing and attain **Skill Development** by using **Experiential Learning** techniques
Course Outcomes	On successful Completion of this course students shall be able to: Theory Component: 7. **Understand** the concepts of 3D Modeling and Texturing Practical Component: 8. **Develop** the students as good 3D Modeling and Texturing Artists by imparting creativity and problem -solving ability. 9. **Produce** 3D Modeling and texturing skills in the development of innovative 3D Short Films as well as Full-fledged movies

Course Content:	Maya Interface, Basic Modelling & Texturing, Introduction to Texturing, Intermediate Modelling Techniques & Polygonal Workflow		
Module 1	**Maya Interface, Basic Modeling & Texturing**	Assignment Documentation	**15 Hours**

Topics:

- Introduction to the Maya interface, including menus, tool shelves, and customization options.
- Navigation techniques: viewport manipulation, hotkeys, and working planes.
- Basic modeling primitives: creating, editing, and transforming primitives.
- Selection techniques: selecting objects, components (vertices, edges, faces), and using selection sets.
- Introduction to modifiers: manipulating existing geometry with tools like Extrude, Inset, and Mirror.

Module 2	**Introduction to Texturing**	Assignment Documentation	**14 Hours**

- **Topics:**
  - Introduction to texturing workflows: understanding the importance of textures and materials.
  - Image manipulation basics relevant to texturing (using software like Photoshop or other texturing software's for basic edits).
  - UV unwrapping fundamentals: unwrapping a model's 3D surface onto a 2D image plane for texture application.
  - Introduction to Maya's shading network: creating basic materials using shaders and textures.
  - Texturing techniques: applying textures to models, basic texture mapping options (repeat, offset, scale).

Module 3	**Intermediate Modelling Techniques & Polygonal Workflow**	Assignment Documentation	**16 Hours**

- **Topics:**
  - Advanced object manipulation: snapping, freezing transformations, and working in different coordinate spaces (local, world, object).
  - Polygonal modeling tools: creating, editing, and manipulating vertices, edges, and faces.
  - Working with polygon meshes, connecting vertices, creating holes, and using the Merge tool effectively.
  - Introduction to retopology: optimizing polygon count while preserving mesh detail.
  - Live Boolean operations for real-time model creation.
  - Introduction to modeling for specific purposes (e.g., games, VFX) with considerations for polygon efficiency.

List of Practical Tasks: Level 1

1. Create a scene using various basic modeling primitives (cubes, spheres, cylinders) and modify them with transformations (scale, rotate, move).
2. Model a simple teapot, unwrap its UVs, and apply a basic texture material to achieve a visually appealing look.
3. Create a basic planetary model and apply procedural textures within Maya to achieve realistic surface features like craters and mountains.
4. Model chess pawns with a focus on replicating its proportions and details. Use reference images and practice proper polygon workflow.

List of Practical Tasks: Level 2

5. Build a low poly furniture (Sofa, Chair) focusing on proper polygonal workflow (clean mesh creation) and efficient use of vertices.
6. Create a model of an old house/cottage, unwrap and texture it

Textbooks

1. *Landes, C. (2018). Advanced Maya Modeling: Techniques for Realistic 3D Characters (1st ed.). Autodesk Official Press.*
2. *Keenan, E. (2019). Maya: The Complete Guide (6th ed.). Autodesk Official Press.*
3. *Woodbury, K. (2017). The Language of 3D Design: A Visual Guide to the Anatomy, Mechanics, and Beauty of Form (1st ed.). Focal Press.*
4. *Paráfilo, E., & Madhav, S. (2011). Introduction to 3D Game Programming with DirectX 11 Using C++ (1st ed.). O'Reilly Media. (While this book focuses on game programming, it covers core 3D modeling and texturing concepts applicable to Maya)*
5. *Spencer, S., & Lathan, K. (2010). 3D Modeling & Texturing: Essential Techniques for Creating Realistic Art (1st ed.). Focal Press.*
6. *Julien, I., & Focal Press Editors. (2009). The Art of 3D Animation and Visual Effects with Maya (2nd ed.). Focal Press. (This book delves into animation and visual effects alongside modeling and texturing, providing a broader context)*
7. *Murdock, K., & Schacher, D. (2004). Maya Modeling and Texturing Bible (1st ed.). Wiley. (While older, this book offers a comprehensive guide to Maya's modeling and texturing capabilities)*

Targeted Application and Tools that can be used: This curriculum ensures that the students gain a solid foundation in 3D Modelling and Texturing methods, using 3D software's like Autodesk Maya, progressing from basic skills to developing their own creative Models and Texture them to create a final polished outlook.

References

22. https://www.youtube.com/watch?v=eBEitxaRYQs&t=568s – Modeling basics in Maya
23. https://www.youtube.com/watch?v=bjIxfVjsXuM – Modeling a Well in Maya
24. https://www.youtube.com/watch?v=V59XKklgfDE – Modeling a Coffee cup in Maya
25. https://www.youtube.com/watch?v=IR0xHcx8xN4 – Modeling Chess pawns in Maya

Topics relevant to "SKILLDEVELOPMENT": Information Communicated through 3D Modeling of props, products, organic and inorganic environments and architecture for **SKILL DEVELOPMENT** through **Experiential Learning Techniques.** This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Mr. Vijay Kumar. D Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
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BSM2061 – Television and Advertisement Production

Course Code: BSM2061	**Course Title: Television and Advertisement Production** **Type of Course:** 1] Program Core 2]Laboratory Integrated	L-T -P-C	1	0	4	3
Version No.	1.0					
Course Pre-requisites	Nil					
Anti-requisites	NIL					
Course Description	This course provides a focus on the technical, artistic, and organizational aspects of developing material for TV and digital platforms. This course offers a thorough examination of television and advertisement production. The whole production process—from concept to post-production will be covered for students, with a focus on television shows and commercial advertising. Students will learn about the technical aspects of video production, including camera operation, lighting, audio, and editing.					
Course Objective	The course's objective is to familiarize learners with the concepts of Video Technology and Production and attain **Skill Development** of students by using **Experiential Learning** techniques.					
Course Outcomes	On successful completion of this course students will be able to: **Theory Component:** 1. Understand scripts, make storyboards, and pitch ideas for Television Shows. **Practical Component:** 2. Plan and create video projects incorporating Video & audio elements. 3. Interpret the process of studio production in Television.					
Course Content: Introduction to video Production, Television and Advertisement Production, Stages of Production, Sound/Audio						
Module 1	**Introduction to video Production**	Assignment	**10 Hours**			
Topics: Video: Definition - working principle of video & film, sound – hardware & equipment, - frame rate, resolution, aspect ratio, compression & format -– digital video cameras & Equipment's used in Studios - Digital video technologies - Benefits of digital video						

Module 2	**Television and Advertisement Production**	Assignment Comparative report	**20 Hours**
Topics: An outline of the television sector - Television program genres (Game Shows, Fiction, reality, comedy, dramas, etc.,) - Important positions in the creation of television (producer, director, writer, etc.) - Show Formats and Concept Development - Creating ideas and concepts for shows - Recognizing many genres and forms for shows - Ideation for Advertisements – Comparison between Advertisement and Television Production – Set Designs for both Advertisement and Television Production.			
Module 3	**Stages of Production**	Assignment Comparative report	15 Hours
Topics: Pre-production- production – post-production - Introduction to the Production Floor - matching of action - the direction of the movement - How Advertisements has been made in earlier days – Advertisements that had a significant impact in the industry – Stages in Advertisement Production			
Module 4	**Sound/Audio**	Assignment Documentation	10 Hours
1. Topics: Perception of sound - hearing sensitivity - Measuring the sound – Introduction to Foley Sounds - Sound isolation and room acoustics- treatments- studio layout – The Basic set-up of the recording system; The production chain and responsibilities. Microphone types -phantom power, noise, choosing the right mike - Mixing console; Input devices & Output devices – Importance of Sound in both Television and Advertisement Production. 2.			
Text Books 1.Tay Vaughan, Multimedia: Making it Work, 9th Edition, McGraw Hill Education			

Reference

Ranjan Parekh, Principles of Multimedia, 2nd Edition, McGraw Hill Education, 2013.

List of Practical Tasks: Level 1

1. Develop a storyboard for a 30-second television advertisement.
2. Write a script for a 1-minute commercial, focusing on clear messaging and brand promotion.
3. Practice filming different scenes using various camera angles and shot compositions.
4. Edit raw footage into a coherent 30-second advertisement using basic video editing software
5. Record a voiceover for a commercial and integrate it with the video footage

List of Practical Tasks: Level 2

6. Create a detailed storyboard and pre-visualization animatic for a 60-second television advertisement
7. Edit a 30-second commercial using advanced video editing techniques such as color grading, sound design, and visual effects.
8. Produce a 2-minute commercial based on a client brief, including scripting, filming, and editing

Targeted applications and tools can be used:

Television and Advertisement Production relies on Adobe Premiere Pro and Final Cut Pro for advanced video editing, complemented by Storyboard That for visual planning and Celtx for scriptwriting. Professional cameras, lighting kits, and audio equipment are essential for capturing high-quality footage and ensuring production quality. These tools equip students to create impactful commercials, mastering technical skills and creative storytelling in television production.

Topics relevant to "SKILL DEVELOPMENT SKILLS":

Basic Shot angles, Basic Composition, Microphones, for developing **"Skill Development"** through **Experiential Learning** Techniques. This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
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BSM 2063 Web Design and Development

Course Code: **BSM2063**	**Course Title:** Web Design and Development **Type of Course:** Discipline Elective - Integrated	**L- T-P- C**	1	0	4	3
Version No.	1.0					
Course pre-requisites	NA					
Anti-requisites	NA					
Course Description	This course provides students with a comprehensive understanding of modern web design and development principles, techniques, and tools. Students will learn to create responsive, accessible, and interactive websites using the latest technologies and best practices. The course covers front-end development, back-end basics, and emerging web technologies, preparing students for the rapidly evolving digital landscape.					
Course Objective	This course aims to enhance students' **Skill Development** through **experiential learning** in web design and development. It focuses on skill development in creating modern, responsive websites, utilizing current technologies and frameworks. Students will learn best practices in accessibility, performance, and security, while gaining exposure to back-end concepts and emerging trends. This practical approach prepares students for the evolving demands of the web development industry.					
Course Outcomes	On successful completion of the course, the students shall be able to: **Theory Outcomes:** 1. **Understand** the basic building blocks of web pages (HTML, CSS, JavaScript) and implement modern web design principles and user experience best practices **Practical Outcomes:** 1. **Interpret** design principles to create user-centered and visually appealing web interfaces. 2. **Employ** design principles to create user-centered and visually appealing web interfaces and demonstrate the core programming languages used for web development.					

<table>
<tr><td>Course Content:</td><td colspan="4">Web Fundamentals and Design Principles, Responsive Design and Usability, Building Websites</td></tr>
<tr><td>Module 1</td><td>Web Fundamentals and Design Principles</td><td>Visual documentation</td><td>Case studies, classroom discussions and presentations</td><td>15 Hours</td></tr>
<tr><td colspan="5">Theory:

1. Introduction to web technologies and the internet
2. HTML5 structure and semantic elements
3. CSS3 fundamentals and styling techniques
4. JavaScript basics and DOM manipulation
5. Principles of modern web design and user experience

Practical:

1. Setting up development environment and tools
2. Creating and structuring web pages with HTML5
3. Styling web pages with CSS3 (including Flexbox and Grid)
4. Implementing basic interactivity with JavaScript
5. Applying design principles to a simple website project</td></tr>
<tr><td>Module 2</td><td>Responsive Design and Usability</td><td>Visual documentation</td><td>Case studies, classroom discussions and presentations</td><td>15 Hours</td></tr>
<tr><td colspan="5">Theory:
1. Responsive web design principles
2. Mobile-first approach and media queries
3. Web typography and color theory
4. Web accessibility guidelines (WCAG)
5. User interface (UI) and user experience (UX) best practices
Practical:
1. Creating responsive layouts using CSS
2. Implementing a responsive navigation system
3. Optimizing images and media for responsive design
4. Conducting accessibility audits and making improvements
5. Designing and developing a responsive portfolio website</td></tr>
</table>

Module 3	Building Websites	Visual documentation	Case studies, classroom discussions and presentations	**15 Hours**

Topics:

1) Website Planning and Content Creation - Defining website goals and target audience
2) Planning website content and information architecture
3) Understanding copyright and licensing issues for web content
4) Web Hosting and Domain Names- Introduction to web hosting and different hosting types
5) Setting up web hosting and uploading website files.
6) Coding website layouts and pages using HTML and CSS
7) Working with reusable CSS styles and frameworks
8) Testing website functionality across different browsers and devices
9) Deploying the website to a live server

List of Practical Projects: Level 1

1) Personal Portfolio Website
    a. A responsive, multi-page site showcasing the student's work and skills
2) Local Business Redesign
    a. Redesign an existing local business website with improved UX and responsiveness
3) Interactive Product Landing Page
    a. A single-page application for a fictional product with interactive elements
4) Accessibility-Focused Blog Template
    a. Design and develop a highly accessible blog template
5) Responsive E-commerce Product Grid
    a. Create a responsive grid layout for displaying products with filtering options
6) Interactive Data Visualization
    a. Develop a web page that presents data through interactive charts and graphs
7) Social Media Dashboard
    a. Design a responsive dashboard that aggregates data from various social media platforms

List of Practical Projects: Level 2

8) Weather App
    a. Create a weather application that fetches and displays data from a weather API
9) Online Quiz Application
    a. Develop an interactive quiz with multiple-choice questions and score tracking
10) Restaurant Menu and Ordering System

a. Design a digital menu with an online ordering feature for a fictional restaurant

11) Event Registration Website

a. Create a website for event information and attendee registration

12) Fitness Tracker Dashboard

a. Develop a dashboard for tracking fitness activities and progress

13) Travel Blog with Photo Gallery

a. Design a travel blog with a responsive photo gallery and article layout

14) Job Board Listing Page

a. Create a job listing page with search and filter functionalities

15) Music Player Interface

a. Design and develop a web-based music player interface

Targeted Applications & Tools that can be used:

- Code Editors: Visual Studio Code
- Version Control: Git and GitHub
- Web Browsers and Developer Tools: Google Chrome DevTools
- Design Tools: Figma
- CSS Preprocessors: Sass
- JavaScript Frameworks/Libraries: React
- CSS Frameworks: Bootstrap or Tailwind CSS
- Package Managers: npm (Node Package Manager)
- Module Bundlers: Webpack
- Performance and Accessibility Testing:Google Lighthouse
- Hosting and Deployment: Netlify or Vercel
- Backend-as-a-Service (BaaS): Firebase

Text Book

- "HTML and CSS: Design and Build Websites" by Jon Duckett (Latest Edition)
- "JavaScript: The Definitive Guide" by David Flanagan (7th Edition or latest)
- "Responsive Web Design with HTML5 and CSS" by Ben Frain (4th Edition or latest)
- "Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability" by Steve Krug
- "Web Design with HTML, CSS, JavaScript and jQuery Set" by Jon Duckett

Reference

- J. Duckett, HTML and CSS: Design and Build Websites, 3rd ed. Indianapolis, IN: John Wiley & Sons, 2023.
- D. Flanagan, JavaScript: The Definitive Guide, 7th ed. Sebastopol, CA: O'Reilly Media, 2020.
- B. Frain, Responsive Web Design with HTML5 and CSS, 4th ed. Birmingham, UK: Packt Publishing, 2022.
- E. A. Meyer and E. Weyl, CSS: The Definitive Guide, 5th ed. Sebastopol, CA: O'Reilly Media, 2023.
- A. Banks and E. Porcello, Learning React: Modern Patterns for Developing React Apps, 2nd ed. Sebastopol, CA: O'Reilly Media, 2020.

Topics relevant to "SKILL DEVELOPMENT SKILLS": Planning website content and information architecture, implementing responsive web design, setting up web hosting and deploying websites, using version control for collaborative development, and creating a professional web development portfolio for **Skill Development** through **Experiential Learning** techniques. This is attained through assessment components mentioned in course handout.	
Catalogue prepared by	Abhilash BS, Asst. Professor SOD
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM2062 – Digital Cinematography

<table>
<tr><td>Course Code: BSM2062</td><td colspan="2">Course Title: Digital Cinematography

Type of Course: 1] Discipline Elective
2] Integrated</td><td>L-T-P-C</td><td>1</td><td>0</td><td>4</td><td colspan="2">3</td></tr>
<tr><td>Version No.</td><td colspan="6">1.0</td><td></td><td></td></tr>
<tr><td>Course Pre-requisites</td><td colspan="6">Nil</td><td></td><td></td></tr>
<tr><td>Anti-requisites</td><td colspan="6">NIL</td><td></td><td></td></tr>
<tr><td>Course Description</td><td colspan="6">This course introduces students to cinematography using digital cameras, focusing on capturing well-exposed, focused, and color-balanced images. Students will learn industry standards, practices, and techniques for manipulating cameras to achieve stylistic and dramatic effects. Emphasis is placed on both skills-based training in film/video production with HD cameras and the study of cinematographic aesthetics. Through practical exercises and projects, students will gain hands-on experience in shooting scenes according to specific aesthetic and dramatic criteria, encouraging them to develop and film their own scripts.</td><td></td><td></td></tr>
<tr><td>Course Objective</td><td colspan="6">This Objective of the course is to familiarize the learners with the concepts of Digital Cinematography and attain Skill Development by using Experiential Learning techniques</td><td></td><td></td></tr>
<tr><td>Course Outcomes</td><td colspan="6">On successful Completion of this course students shall be able to
Theory Component:
10. Understand the implications of shooting in different camera with Proper Composition.
Practical Component:
11. Develop skills in operating digital cameras, lighting, and composing shots.
12. Utilize the functions of various manual control settings on the Video cameras to take control of the visual field in front of the camera</td><td></td><td></td></tr>
<tr><td>Course Content:</td><td colspan="6">Introduction to the Digital Camera, The Visual Production Process, Composition Techniques, Working with Video Cameras., Framing and Shot composition with Proper meaning.</td><td></td><td></td></tr>
<tr><td>Module 1</td><td>Introduction to the Digital Camera</td><td>Assignment Documentation</td><td colspan="3">20 Hours</td><td></td><td></td></tr>
</table>

Topics: The basic principles of Photography and the camera. Formats for recording. Lenses, their types and use. Focus and depth of field. Optical techniques - Comparison between digital and traditional film cinematography - Types of digital cameras (DSLR, mirrorless, cinema cameras) - Basic components of a digital camera (sensor, lenses, viewfinder)					
Module 2	The Visual Production Process	Assignment Documentation	**20 Hours**		
Topics: Production, Roles and responsibilities- camera operator, lighting operator- Principles of Lighting - Three-point lighting setup (key light, fill light, back light) – How to use lighting techniques to create mood and atmosphere - Working with various light sources (LEDs, tungsten, fluorescent) - Techniques for diffusing and shaping light - Lighting for different scenes (day, night, interior, exterior)					
Module 3	Composition Techniques	Assignment Documentation	**20 Hours**		
Topics: The shot, Framing, Mise-en-scene - Principles of composition (rule of thirds, leading lines, symmetry) Framing techniques for different types of shots (wide, medium, close-up) - camera movement (pan, tilt, tracking, handheld) - Tools for stabilization (tripods, gimbals, sliders) - Using composition to enhance storytelling					

List of Practical Tasks: Level1

1: understand Working of Cameras

2: familiarize different Camera Settings

3: experience Outdoor Production Process

4: experience Location Scouting

List of Practical Tasks: Level2

5: Camera Equipment's used for Shooting in Film and Television

6: Hands-on project on lighting and how to compose a scene

7: Camera Framing (Mise-en-Scene)

8: Camera Shots and Angles.

Targeted applications and tools can be used :

Digital cinematography utilizes advanced tools such as RED and ARRI cameras for capturing high-definition footage with precise exposure and color fidelity. Editing software like Adobe Premiere Pro and DaVinci Resolve enhances post-production workflows, offering tools for color grading and editing. Additionally, tools like cine lenses and stabilizers ensure professional-level cinematographic results, empowering students to master the art of digital filmmaking.

Text Books

- Blain Brown 2011, Cinematography: Theory and Practice, Paperback Ed., Focal Press
- Jennifer Van Sijll 2005, Cinematic Storytelling: The 100 Most Powerful Film Conventions Every Filmmaker Must Know, Michael Wiese Productions

References

26. Citizen Kane (Orson Wells, USA, 1941)
27. https://youtu.be/Ow7w7FUAkdk - Basics of Cinematography
28. https://youtu.be/mXR571pR4Og – Camera Movements
29. https://youtu.be/nKM3jkEOpuE - Framing and Composition Techniques.

Topics relevant to "EMPLOYABILITY SKILLS":

The shot, Framing, Mise-en-scene, Camera angles, Camera Movements, Equipment's used for Production for developing **Skill Development** through **Experiential Learning** techniques. This is attained through the assessment component mentioned in the course handout.

Catalogue prepared by	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)		
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024		
Date of Approval by the Academic Council	24th AC dated 03.08.2024		

BSM2068 Game Ideation and Ethics

<table>
<tr><td>Course Code: BSM2068</td><td colspan="3">Course Title: Game Ideation and ethics

Type of Course: Discipline Elective, Integrated</td><td>L-T-P-C</td><td>2</td><td>0</td><td>2</td><td>3</td></tr>
<tr><td>Version No.</td><td colspan="8">2.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="8">NA</td></tr>
<tr><td>Anti-requisites</td><td colspan="8">NA</td></tr>
<tr><td>Course Description</td><td colspan="8">Unleashing the creativity and design ethically responsible games! This course equips with the skills to brainstorm innovative game ideas, exploring inspiration sources and development techniques. We'll also delve into the ethical landscape of video games, examining social and moral concerns to ensure your designs contribute to a positive gaming environment. By the end, you'll be able to refine your ideas and make informed design choices for impactful and responsible games.</td></tr>
<tr><td>Course Objective</td><td colspan="8">The objective of the course is to familiarize the learners with the concepts of Game Ideation and ethics and attain Skill development through Experiential Learning techniques.</td></tr>
<tr><td>Course Out Comes</td><td colspan="8">On successful completion of the course, the students shall be able to:
Theory Component:
1. Explain the fundamentals of Game Design and the ethics involved. Describe different social, moral and traditional values that could be affected by games.
Practical Component,
1. Produce various video game ideas using idea generation techniques.
2. Apply techniques to create proper documentation (GDD) for the game idea, after properly validating them.</td></tr>
<tr><td>Course Content:</td><td colspan="8">Game Design Introduction, For and Against Video Games, Idea Generation & Designing Video Games Responsibly, Game Design Fundamentals,</td></tr>
<tr><td>Module 1</td><td colspan="2">Game Design Introduction, For and Against Video Games</td><td>Demonstration
Case Study
Documentation</td><td colspan="3">Observation/ Demo/ Videos/ Interaction/ Discussion</td><td>10 Hours</td></tr>
</table>

	Topics: 1. What is a Game? 2. What is Game Design? 3. The Game Production Pipeline. 4. Essential Skills for a Game Designer. 5. The Designer's Goal. 6. Video Game Addiction, Gambling and Violence. 7. Social and Cultural Issues with Video Games. 8. Addiction: Perception v/s Reality. 9. Player Retention. 10. Morality within Gamers. 11. Celebrating Cultures. 12. Inclusivity in Video Games.				
Module 2	**Idea Generation & Designing Video Games Responsibly**	Demonstration Case Study Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion		15 Classes
	Topics: 1. Elements of a Game. 2. Player Motivation. 3. 5 Ideation techniques. 4. Game Genres. 5. Validating Ideas. 6. Sustainable Design Practice Awarding Disengagement. 7. Fair Economy Models. 8. Dark Patterns & Transparency in Design. 9. Shaping Player Behaviour. 10. Designing for Disability.				
Module 3	**Game Design Fundamentals**	Demonstration Case Study Documentation Assignment	Observation/ Demo/ Videos/ Interaction/ Discussion/ Practice		20 Classes
	Topics: 1. Basic Game Mechanics. 2. Moodboard Creation. 3. Gameplay Loops: Theory. 4. Gameplay Loops: Practical. 5. Documentation. 6. Types of Documents. 7. GDD Creation.				

	List of Laboratory Tasks: Level 1 **Experiment N0 1:** Gameplay Loops. Level 1: Students must break down popular games and identify their core and supporting loops and make the appropriate diagram representing the loops. **Experiment N0 2:** Generate 5 different ideas using various ideation techniques. Level 1: Students will create 5 different ideas using various ideation techniques, like Inspiration, Memory, Previous Games, Daily Life, and Passion. **List of Laboratory Tasks: Level 2** **Experiment N0 3:** Validating Ideas. Level 2: Students must select 1 out of all ideas after properly validating it. **Experiment N0 4:** Game Design Documentation. Level 2: Students will be designing a GDD document that lists all the topics covered in this course, for a particular game idea after it has been properly validated.
	Targeted Application & Tools that can be used: Video game ideation is a critical step when developing video games, as it helps develop a clear vision for the game and lay the foundation for its design and development. Ideation can also help teams identify key elements that will make the game unique and engaging. By brainstorming ideas and discussing them, developers can identify potential issues early on and make changes before they become costly.
	Text Book: 1. Practical Game Design: Learn the art of game design through applicable skills and cutting-edge insights. (ISBN-10 1787121798) 2. A Playful Production Process: For Game Designers (and Everyone). (ISBN 0262045516) 3. Games, Design and Play: A Detailed Approach to Iterative Game Design (ISBN-10 0134392078) 4. The Art of Game Design. (ISBN-10 9781466598645) **5.** The Ethics of Computer Games. The MIT Press; 2009 - Miguel Sicart. Ethics of Computer Gaming: A Groundwork (ISBN: 9783662643969). Video Games, Violence, and the Ethics of Fantasy: Killing Time (ISBN: 9781350202702)

	References: • Ideation: The Game Making Process: https://youtu.be/LAKy595YLFI • Ideation Techniques: https://youtu.be/Ka5x0ApaIHU • Board of Innovation: https://cutt.ly/C1yDoP7 • 5 Ideation techniques: https://www.mural.co/blog/remote-ideation-techniques • Best uses of a morality/karma system in gaming?: patientgamers (reddit.com) • Moral Choice in Video Games – Media Psychology Review (mprcenter.org) • Ethics in the Videogame Industry: A Mythbusting and Scientific Approach **VIDEO LINKS:** 1. Morality in the Mechanics - https://www.youtube.com/watch?v=6RHH7M4siPM 2. How video games affect real-life morality - https://www.youtube.com/watch?v=dNW9e8vIC_4 3. Designing for Disability: Mark Brown Series - https://wearecolorblind.com/resources/video-designing-for-disability/
	Topics relevant to "EMPLOYABILITY SKILLS": Types of Game Documents, The Game Design Document, Types of GDDs, Popular GDDs, Case Studies, GDD Template, Project: GDD Creation for developing, Awarding Disengagement, Fair Economy Models, Dark Patterns & Transparency in Design **Employability Skills** through **Experiential Learning Techniques.** This is attained through assessment components mentioned in the course handout.

Catalogue prepared by		Ms. Rasika Chandle and Mr. Karthik Asst. Prof. Game Design
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM2067 – Introduction to Immersive Technologies

Course Code: BSM2067	**Course Title: Introduction to Immersive Technologies** **Type of Course: 1] Discipline Elective** **2] Integrated**	**L-T-P-C**	1	0	4	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course equips B.Sc. Multimedia students with a foundational understanding of immersive technologies and their applications across various fields. Through a combination of lectures, discussions, hands-on labs, and project work, students will explore the core concepts of virtual reality (VR), augmented reality (AR), mixed reality (MR), and other immersive experiences. The course emphasizes the practical application of these technologies through project-based learning, allowing students to develop skills in content creation, user interaction design, and storytelling for immersive environments.					
Course Objective	The course's objective is to familiarize learners with the concepts of Introduction to Immersive Technologies and attain **Skill Development** through Different Immersive Fundamentals **Experiential Learning** techniques.					
Course Outcomes	On successful completion of this course students shall be able to **Theory Component:** 13. **Understand** the core functionalities and applications of VR, AR, MR, and other immersive technologies. **Practical component:** 14. **Design** and develop basic immersive content using relevant creation tools. 15. **Apply** storytelling principles to craft compelling narratives for immersive experiences.					

<table>
<tr><td>Course Content:</td><td colspan="4">Demystifying Immersive Technologies, Immersive Storytelling & User Experience, Project Development & Iterative Design, Future of Immersive Technologies.</td></tr>
<tr><td>Module 1</td><td>Demystifying Immersive Technologies</td><td>Assignment Documentation</td><td></td><td>15 Hours</td></tr>
<tr><td></td><td colspan="4">Focus: Understanding the core concepts, functionalities, and limitations of VR, AR, and MR technologies through case studies and practical exploration.

Theory Topics:

• Introduction to immersive technologies (VR, AR, MR, and emerging possibilities)
• Hardware components and functionalities of VR headsets, AR glasses, and motion tracking systems
• Software platforms and tools for immersive content creation

Case Studies:

• Analyze successful immersive experiences across industries (e.g., gaming, education, healthcare, retail)
• Identify key design principles used in these experiences
• Discuss the impact of immersive technologies on user behavior and engagement</td></tr>
<tr><td>Module 2</td><td>Immersive Storytelling & User Experience</td><td>Assignment Documentation</td><td></td><td>15 Hours</td></tr>
<tr><td></td><td colspan="4">Focus: Designing user-centered immersive experiences through storytelling techniques, interface design, and UX considerations

Theory Topics:

• Storytelling principles for immersive experiences (linear vs. non-linear narratives)
• User interaction design in VR and AR (considerations for comfort and accessibility)
• Ethical considerations in immersive technology development (data privacy, safety)

Case Studies:

• Analyze storytelling techniques used in successful immersive experiences
• Evaluate user interface (UI) design choices in AR/VR applications and their effectiveness
• Discuss ethical concerns and best practices in immersive technology development</td></tr>
<tr><td>Module 3</td><td>Project Development & Iterative Design</td><td>Assignment Documentation</td><td></td><td>16 Hours</td></tr>
</table>

	Focus: Applying acquired knowledge and skills to develop and iterate on an immersive project through design thinking principles. **Theory Topics:** • Design thinking for immersive technology development • Project planning and management for immersive projects			
Module 4	**Future of Immersive Technologies**	Assignment Documentation		**16 Hours**
	Focus: Exploring emerging trends, applications, and potential societal impacts of immersive technologies. **Theory Topics:** • Emerging immersive technologies (e.g., brain-computer interfaces, spatial computing) • Potential applications of immersive technologies in various industries (e.g., education, training, social interaction) • Societal impacts of immersive technologies (ethical considerations, accessibility, privacy concerns) **Case Studies & Research:** • Analyze research papers and articles exploring future trends in immersive technologies • Discuss potential benefits and challenges associated with emerging immersive applications • Analyze the societal implications of immersive technologies (e.g., impact on work culture, social interaction, mental health)			

	List of Practical Tasks: Level 1: 1: Hands-on exploration of different VR and AR hardware platforms (guided sessions) 2: Introduction to immersive content creation tools (e.g., Unity, Unreal Engine) - basic functionalities 3: Conducting user testing sessions on basic immersive prototypes and iterating based on feedback 4: User experience (UX) analysis of existing VR/AR applications

	List of Practical Tasks: Level-2: 5: Research presentations on specific emerging immersive technologies 6: Group discussions and debates on the ethical considerations and future of immersive technologies 7: Developing a creative prototype or concept for a future immersive application **Targeted Application & Tools that can be used:** In Introduction to Immersive Technologies, students will utilize tools like Unity and Unreal Engine for developing VR, AR, and MR content. Hardware such as Oculus Rift, HTC Vive, and Microsoft HoloLens will be used to explore and create immersive experiences. Software platforms like Blender and Maya will aid in 3D modeling, while storytelling and usability assessment tools like Twine and UX design frameworks will ensure engaging and user-friendly applications. These tools provide a comprehensive foundation for mastering immersive technology development **Text Books** o Virtual Reality: The Next Big Thing by Tom Furness o Augmented Reality: A Guide to the Technology and Applications of AR by David Rose o The Metaverse: What It Is, Where It's Going, and How It Will Change Everything by Matthew Ball o Storytelling for Virtual Reality: Techniques for Effective VR Narratives by Diane Bustamante
	References 30. J. Jerald, The VR Book: Augmented Reality, Virtual Reality, and Mixed Reality (2nd Edition), Addison-Wesley Professional, 2016. 31. G. Welch and D. Bishop, An Introduction to Augmented Reality (2nd Edition), A K Peters/CRC Press, 2016. 32. S. Weiskamp and M. Baumann, The Art of User Interface Design for Virtual Reality (1st Edition), CRC Press, 2019. 33. M. Ryan, Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media (1st Edition), Johns Hopkins University Press, 2001. 34. T. Brown and J. Wyatt, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation (1st Edition), HarperBusiness, 2009. 35. R. Sharma and R. Vatsavai, Metaverse: Life Beyond the Physical (1st Edition), Springer Nature Singapore Pte Ltd., 2022.

	36. [Project Management Resources] (refer to online resources or textbooks on project management methodologies. Here are some suggestions): 37. A Guide to the Project Management Body of Knowledge (PMBOK Guide) - Sixth Edition by Project Management Institute 38. [Case Study Examples] (refer to specific research papers or articles on successful immersive experiences across industries) 39. [Research Papers on Emerging Immersive Technologies] (refer to recent research articles exploring brain-computer interfaces, spatial computing, etc.) 40. [Articles on Societal Impacts of Immersive Technologies] (refer to articles discussing ethical considerations, accessibility, and privacy concerns)	
	Topics relevant to SKILL DEVELOPMENT: Topics like Introduction to immersive technologies, Software platforms and tools for immersive content creation helps to **"Skill Development"** through **Experiential Learning** Techniques. This is attained through motion capture assessment components mentioned in course handout.	
Catalogue prepared by		Mr. B. S. Abhilash Assistant Professor SOD
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM3040 3D Game Art and Design

Course Code: BSM3040	**Course Title:** 3D Game Art and Design **Type of Course:** 1.Discipline Elective 2.Integrated		**L-T-P-C**	1	0	4	3
Version No.	1.0						
Course Pre-requisites	NA						
Anti-requisites	NA						
Course Description	This course provides comprehensive training in 3D game design using Unreal Engine. Students will start with the basics and progress to advanced techniques, ultimately developing a complete 3D game. The course covers importing assets, animations, constructing game mechanics, and level design within Unreal Engine.						
Course Objective	The course's objective is to familiarize learners with the concepts of 3D Game Art and Design and attain **Skill Development** through **Experiential Learning** techniques.						
Course Out Comes	On successful completion of the course, the students shall be able to: Theory Component: 1. **Describe** the process of game creation using Game Engine. Practical Component: 3. **Produce** game levels for 3D Games. 4. **Produce** a working 3D prototype for a game.						
Course Content:	Fundamentals of 3D Design, Game Mechanics Integration, Advanced 3D Game Development						
Module 1	Fundamentals of 3D Design	Demonstration Case Study Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion/ Practice			10 hours	
Topics: 1. 3D Modelling for Gaming 2. Poly counts and Low Poly Modelling 3. Texturing and UV Mapping methods for Game Models 4. Assets Creation for Games 5. Introduction to 3D Game Design 6. Unreal Engine Interface 7. Integrating 3D Models to Engine 8. Integrating Animation 9. Introduction to Blueprint							
Module 2	Game Mechanics Integration	Demonstration Case Study Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion/ Practice			20 Hours	
Topics: 1. Game Mechanics 2. Systems Design 3. Level Design and Worldbuilding 4. User Interface and Experience (UI/UX)							

Module 3	Advanced 3D Game Development	Demonstration Case Study Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion/ Practice	15 Hours

Topics:

1. Lighting and Post Processing
2. Advanced Blueprint Scripting
3. Particle Effects
4. Camera and Cinematics
5. Debugging
6. Building and Exporting Games

List of Laboratory Tasks: Level 1

Experiment NO 1: Designing a level using Game Engine.
Level 1: Student will learn to design a level, with player guidance and proper lighting and the critical path using game engine.

Experiment NO 2: Design a short Cinematic.
Level 1: Student will learn to design a short cinematic using game engine. By importing animations and understanding how the in-engine camera works.

List of Laboratory Tasks: Level 2

Experiment NO 3: 3D Game Prototype.
Level 1: Students will create a working prototype for a 3D Game.

Targeted Application & Tools that can be used: This curriculum ensures that students gain a solid foundation in Unreal Engine, progressing from basic skills to the creation of a full 3D game by the end of the semester.

Text Book:
"Unreal Engine 4 for Beginners: A Comprehensive Guide to 3D Game Development" by David Nixon, Unreal Engine 4 Scripting with C++ Cookbook" by William Sherif, "Blueprints Visual Scripting for Unreal Engine" by Brenden Sewell

References:

Unreal Engine Learning: https://www.unrealengine.com/marketplace/en-US/content-cat/assets/onlinelearning
Unreal Engine Documentation: https://dev.epicgames.com/documentation/en-us/unreal-engine/unreal-engine-5-4-documentation

Topics relevant to "Skill Development":
Unreal Engine Interface, Level Design and Worldbuilding, Blueprint for developing **Skill Development** through **Experimental Learning** techniques. This is attained through the assessment component mentioned in the course handout.

Catalogue prepared by	Ms.Rasika Chandle Asst. Prof. Game Design
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024

Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM2064 – 3D Character Animation

Course Code: BSM 2064	**Course Title: 3D Character Animation** **Type of Course: 1] Program Core** **2] Practical Integrated**		**L-T-P-C**	1	0
Version No.		1.0			
Course Pre-requisites		**Nil**			
Anti-requisites		**NIL**			
Course Description		Through this course the students master the fundamentals of 3D animation, including human anatomy. This course equips students with the skills to create their own 3D animations. Stude various animation software and tackle creative projects, pushing the boundaries of their artist			
Course Objective		The objective of the course is to familiarize the learners with the concepts of 3D Charac Animation and attain **Skill Development** of students by using **Experiential Learning** t			
Course Outcomes		On successful Completion of this course students shall be able to **Theory component:** 16. **Understand** the art and technique for animating objects **Practical component:** 17. **Produce** 3D animations using the rigs 18. **Develop** a short/mini animated story			
Course Content:		Introduction to character animation, animation tools and character posing, advanced ani techniques			
Module 1	**Introduction to Character Animation**	Assignment Documentation		**15 Hours**	
	• **Focus:** This module establishes a solid foundation in 3D character animation tools and basi animation principles. • **Topics:** o **Character Setup:** Exploring character rigs (pre-built skeletons for animation) and understanding their components (joints, controls). o **IK (Inverse Kinematics):** Understanding and applying IK for natural character mo (e.g., arms and legs). o **Basic Animation Tools:** Introducing keyframing, interpolation methods (linear, spl playback controls, and the Graph Editor. o **12 Principles of Animation:** Building a foundation of animation principles like squ stretch, anticipation, follow-through, and secondary motion. o **Creating Basic Animations:** Students will practice basic animations like ball boun ball bounce, pendulum, 3 stick animation, dog's ear etc o **Include FK** o **Animation Pipeline and Workflows:** Understanding the animation production pip including pre-production, animation, and post-production stages.				

Module 2	**Animation Tools and Character Posing**	Assignment Documentation		**14 Hours**
	• **Focus:** This module builds upon the foundation, introducing intermediate animation techni character posing for believable movement. • **Topics:** o **Introduction to Acting for Animators:** Exploring basic acting principles for conv emotions and character personality through animation. o **Advanced Animation Tools:** Exploring tools like animation layers, blending mode non-linear animation techniques. o **Character Posing:** Learning proper character posing principles for weight distribut balance, and avoiding awkward postures. o **Timing and Spacing:** Refining animation timing and spacing for impactful and nat looking movements. o **Character Locomotion:** Creating walk cycles, run cycles, and other locomotion an for characters.			
Module 3	**Advanced Animation Techniques**	Assignment Documentation		**16 Hours**
	• **Focus:** This module explores advanced animation techniques, introduces basic lip-syncing professional animation workflows, explores advanced animation tools in Maya, and prepare for collaborative animation projects. • **Topics:** o **Animation Curves and the Graph Editor:** Advanced manipulation of animation c the Graph Editor for fine-tuning animation timing and behavior. o **Introduction to Lip-Syncing:** Exploring workflows for lip-syncing characters base audio recordings. o **Basic Facial Animation Techniques:** Learning how to animate facial features (eye mouth) for believable expressions. o **Character Interaction and Storytelling:** Creating animations that showcase chara interaction and basic storytelling techniques. o **Animation Tools for Efficiency:** Exploring advanced tools like Motion Capture int character animation tools within Maya (e.g., Walk Cycle Wizard), and scripting for automation. o **Assignments:** Students will complete a mini animation project, incorporating advan techniques, receiving and implementing feedback, and creating a final presentation for a portfolio or demo reel.			
	List of Practical Tasks: **Level 1:** 1. Create a Ball Bounce and Pendulum animation showing different principles of animation 2. Create Progressive Ball bounce animation telling a short story 3. 3 Stick Animation showing follow through, secondary and overlapping action 4. Dog's ear animation showing follow through, secondary and overlapping action 5. Create standard walk cycle animation with the given character 6. Create a run cycle animation with given character 7. Students will create animations with a focus on proper posing, timing, and spacing, incorporating principles.			

	Level 2: 8. Create different kinds of walk and run cycles 9. Create progressive walks and runs 10. Create a Jump scene 11. Create a mini animation telling a small story	
	Targeted Application & Tools that can be used: This curriculum ensures that students gain a sol foundation in 3D character animation, progressing from basic skills to the creation of a full 3D ani the end of the semester. 3D Animation Software's like Autodesk Maya	
	Text Books o Williams, R., & Ward, A. (2009). The Animator's Survival Kit: A Reference Guide to Ma Capture, Facial Animation, and Visual Effects (3rd ed.). Faber and Faber. o Landes, C. (2018). Advanced Maya Character Animation: Creating Personalities wi Deformers, and Acting Principles (1st ed.). Autodesk Official Press. o Julien, I., & Focal Press Editors. (2009). The Art of 3D Character Animation (2nd ed.). Focal o Eberle, C., & Sosa, J. (2014). Maya Modeling and Animation for Beginners (2nd ed.). Focal o Ward, A. (2012). Making Faces: Facial Animation with Maya (2nd ed.). Faber and Faber. o Frank Thomas, Ollie Johnston, ILLUSION OF LIFE o Anna Khan. Acting and Character Animation: The Art of Animated Films, Acting and Visuali o Kenny Roy. How to Cheat in Maya 2014: Tools and Techniques for Character Animation 6. Keith Osborn. Cartoon Character Animation with Maya: Mastering the Art of Exaggerated	
	References 41. https://www.youtube.com/watch?v=LJLo6MafPVM – Introduction to Maya 42. https://www.youtube.com/watch?v=FrTIpuAVdys&list=PLnRp1fUkiXQf7VPf1TmVosgK Character Animation Fundamentals 43. https://www.youtube.com/watch?v=U9Ml95_4pUM – Character Animation using other inb animations	
	Topics relevant to SKILL DEVELOPMENT: The 12 principles of animation, pose to pose A Keyframe Animations for **Skill Development** through **Experiential Learning Techniques.** This through the assessment component mentioned in the course handout.	
Catalogue prepared by		Mr. Vijay Kumar. D Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

Course Code: BSM3037	**Course Title: 3D Rigging** **Type of Course: 1] Program Core** **2]Integrated**		**L-T-P-C**	2	0	4	4
Version No.	1.0						
Course Pre-requisites	**Nil**						
Anti-requisites	**NIL**						
Course Description	**Nature of the Course:** This Module provides both skills-based training in the basic principles and practice of 3D Rigging and Animation. Students will be exposed to the demands and possibilities of working with different Animation Software's and will be asked to produce their own creative Rigged Character's and Animations.						
Course Objective	The objective of the course is to familiarize the learners with the concepts of 3D Rigging for animation and attain **Skill Development** of students by using **Experiential Learning** techniques.						
Course Outcomes	On successful Completion of this course students shall be able to **Theory Component:** 19. **Understand** the art and anatomy of Humans and animals along with recognizing the interface of 3D Animation Software in depth for creating superior quality rigged characters for animating their own characters. **Practical Component:** 20. **Develop** creative rigged models for animation 21. **Utilize** the functions of various menus, sub menus and Interfaces associated with animation software to rig and animate the modelled characters. 22. **Create** their own rigged characters for producing animations.						
Course Content:	Character rigging fundamentals, skinning, deformers and rigging workflows, blend shapes						
Module 1	**Character Rigging Fundamentals**	Assignment Documentation	**20 Hours**				

- **Topics:**
  - Observation and analyzing of different skeletal structures, humans, animals, reptiles etc
  - Understanding Character Rigs: Defining the purpose and functionality of character rigs, exploring their various components (joints, IK/FK systems, controls).
  - Character Skeleton Hierarchy: Learning proper bone hierarchy for animation (naming conventions, parenting structures).
  - IK (Inverse Kinematics) vs. FK (Forward Kinematics): Understanding the difference between IK and FK systems and their applications in animation.
  - Introduction to Maya's Rigging Tools: Exploring core tools like the Skeleton tool, Joint tool, and the powerful "IK Rigging" solver system.
  - Basic Rigging Workflow: Building a simple biped rig with joints, IK/FK setups for limbs, and basic controls for animation.
  - Advanced Joint Tools: Exploring advanced joint tools like the "Match Skeleton" tool and mirroring techniques for efficient rigging.
  - Constraints in Rigging: Understanding and applying various constraints (e.g., Point, Orient, Pole Target) for controlling character movement realistically.
  - Creating Rigging Controls: Building intuitive and user-friendly control systems for animators to efficiently manipulate the character.

Module 2	**Skinning, Deformers, and Rigging Workflows**	Assignment Documentation	**15 Hours**

- **Topics:**
  - Introduction to Skinning: Learning the process of skinning a character mesh to the underlying rig for animation.
  - Weight Painting Techniques: Understanding and applying weight painting techniques to define how vertices on the mesh are influenced by the rig's movements.
  - Deformers in Rigging: Exploring deformers like Bendy bones, Blend Shapes, and Cluster deformers for achieving complex deformations (e.g., facial expressions, clothing wrinkles).
  - Character Rigging Pipeline: Understanding the various stages of a professional character rigging pipeline (planning, blocking, binding, refinement).

Module 3	**Blend Shapes**	Assignment Documentation	**15 Hours**

- **Topics:**
  - Basic facial rigging techniques: Creating simple and complex facial rigs with advanced blend shapes for nuanced expressions and lip-syncing.
  - Character Binding and Export: Understanding the process of binding a skinned character to its rig for animation and exporting the rigged character for use in other software (e.g., animation software).

Module 4	**Team Collaboration**	Assignment Documentation	**10 Hours**

- **Topics:**
  - Rigging for Collaboration: Learning how to prepare rigs for sharing with other animators, following industry standards for file organization and naming conventions.
  - Introduction to Rigging Tools and Scripts (Optional): Exploring advanced rigging tools and scripts (potentially custom-written) for increased efficiency and automation.
  - Rigging Presentation and Documentation: Creating clear documentation and presentations showcasing the functionality of a character rig for animators.
- **Assignments:** Prepare rigging documentation for collaborative workflows.

List of Practical Tasks: Level 1

1. Create a 3 stick Animation rig
2. Create a hand rig
3. Create Snow man rig

List of Practical Tasks: Level 2

4. Simple man rig
5. Facial rig using simple blend shapes
6. Facial rig using simple locators and skin binding

Targeted Application & Tools that can be used:

- Autodesk Maya 2022

Text Books

1. Millepied, B. (2020). Advanced Maya Character Rigging: The Essential Guide to Skeletal Systems and Skinning Techniques (1st ed.). John Wiley & Sons.
2. Schacher, D., & Murdock, K. (2014). Learning Maya Rigging: Biped and Quadruped Creature Skeletons (2nd ed.). John Wiley & Sons.
3. Osipa, J. (2013). The Art of Maya Character Rigging (2nd ed.). Focal Press.
4. Selva, D., & Mira, M. (2018). Introduction to Maya Character Rigging (1st ed.). Packt Publishing.
5. Maya: The Complete Guide (Latest Edition). Autodesk Official Press.
6. Cheryl Cabrera, (2008) An Essential Introduction to Maya Character Rigging, Focal Press
7. Jason Patnode, Character Modeling with Maya and ZBrush: Professional polygonal modeling techniques 1st Edition, Taylor & Francis
8. Kelly L. Murdock, Autodesk Maya 2020 Basics Guide, Sdc Publications
9. Sean Blake, The Animator's Guide to Maya: Character Rigging and Animation (Focal Press)
10. Alexis Aja AK Peters, Character Animation with Maya: Walk Cycles and Beyond by /CRC Press)
11. Ron Squires, Advanced Rigging & Deformations: For Games and Animation (Thomson Course Technology)
12. Tony Lawrence, The Art of Facial Rigging: Character Facial Animation for Maya (Focal Press)
13. Richard Williams, The Animator's Survival Kit: A Reference Guide for Animators by (Focal Press)

References

44. https://www.youtube.com/watch?v=LJLo6MafPVM – Introduction to Maya

45. https://www.youtube.com/watch?v=U9Ml95_4pUM – Character Animation

3. https://www.youtube.com/watch?v=eBEitxaRYQs&list=PL8G4GiXpgTvK_Hz55q_big94BMO2pCI65 - Maya Polygonal Modelling

4. https://www.youtube.com/watch?v=LK5REbXkVak&list=PLoxdv8fALl90LfISWtg2GaOFmjttfCtE9 – Basics of Maya rigging

5. https://www.youtube.com/watch?v=FvzHn2C-LtQ&list=PLbvsJz5ZcmxGpUYWF-JqqXyRdAMpFtVf9 – Maya Facial Rigging

Topics relevant to SKILL DEVELOPMENT: Skeleton setup for a Biped Character-setting up work area, working with Joints, Child Parent Connection-Child Parent Connection Multiple-Constrain parent, rigging it with IK and FK Handles, Binding the skin to the skeleton, Rigid Body collision for **Skill Development through Experiential Learning Techniques.** This is attained through assessment component mentioned in course handout.

Catalogue prepared by	Mr. Vijay Kumar D Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

DES2081 – Brand Building in Design

<table>
<tr><td>Course Code:

DES2081</td><td colspan="3">Course Title: Brand Building in Design

Type of Course: 1] Open Elective
2] Theory</td><td>L-T-P-C</td><td>3</td><td>0</td><td>0</td><td>3</td></tr>
<tr><td>Version No.</td><td colspan="8">1.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="8">Nil</td></tr>
<tr><td>Anti-requisites</td><td colspan="8">NIL</td></tr>
<tr><td>Course Description</td><td colspan="8">This course introduces students to integrated brand-building strategies, differentiating between branding and marketing. It develops their ability to create their own brand strategies, providing skills-based training in branding principles and practices. Students will explore integrated branding methods, including brand strategy creation and brand-building advertisement production. They will be tasked with producing their own creative brand strategies</td></tr>
<tr><td>Course Objective</td><td colspan="8">This Objective of the Course is to familiarize the learners with the concepts of Brand Building in Design and attain Skill Development by using Participative Learning techniques</td></tr>
<tr><td>Course Outcomes</td><td colspan="8">On successful Completion of this course students shall able to
Understand the Integrated Brand strategy Models.
Develop the skill to create / Design Brand strategy for Integrated Mediums also creates the ability to produce creative Advertisements for Different Mediums.
Utilise the functions of various Methods and ways to create Brand strategy.</td></tr>
<tr><td>Course Content:</td><td colspan="8">Introduction to Branding, Brand Strategy Design, Brand Strategist Roles and Responsibilities</td></tr>
<tr><td>Module 1</td><td>Introduction to Branding</td><td colspan="3">Assignment Documentation</td><td colspan="4">5 Hours</td></tr>
<tr><td colspan="9">Topics:
Introduction To Product vs Brand- what is Branding-Defining a Brand-Brand Core (Purpose, Vision, Values)-Brand Positioning (Audience, Market, Goals)- Brand Persona (Personality, Voice, Tagline)</td></tr>
<tr><td>Module 2</td><td>Brand Strategy Design</td><td colspan="3">Assignment Documentation</td><td colspan="4">10 Hours</td></tr>
</table>

Topics:

How Branding Help to Business Growth - Target market- Brand Positioning- Brand image Building -Brand Identity creation- Brand personality – Brand Vision- Inside Branding-Outside Branding - Brand Strategy Creation- Different Mediums for Branding-Branding Vs Marketing- Understand the Social Psychology of Brands- Emotion and Brands- The symbolic Meaning of Brands.

Module 3	**Brand Strategist Roles and Responsibilities**	Assignment Documentation	**5 Hours**

Topics:

Analyzing Consumer Behavior to define Company Positioning- creating and Checking for Brand Marketing Deliverables- Communicating with Creative Team – Conduct Competitive research to Identify strength and weakness - Design promotional campaigns for new products / services

List of Assignment Tasks:

Level1

1: Identify a Company / Product /Service, Create a Logo and Tagline.

2: Create a Brand Building Advertisement (Print) for a Company / Product /Service of your choice

Level 2:

3: Create a Brand Building Advertisement (Video) for a Company / Product /Service of your choice

4: Create a Brand Promotional Marketing Plan (indoor and Outdoor) for a Company / Product /Service of your choice

5: Create a Two-Year Brand Strategy Design plan for a Company / Product /Service of your choice

Targeted Application & Tools that can be used:

In Brand Building in Design, students will use tools like Adobe Creative Suite (Photoshop, Illustrator, InDesign) for creating visual identities and branding materials. Platforms such as Canva offer accessible design solutions, while Hootsuite and Buffer help manage brand presence on social media. Additionally, software like Brand24 and Google Analytics provide insights into brand performance and audience engagement. These tools collectively enable students to develop, execute, and analyze effective brand strategies.

Text Books

- Douglas Davis, Creative Strategy and the business of Design, Adams Media -Simon and Schuster-2016.
- Donald Miller, Building a Story Brand - HarperCollins Leadership 2017

References

46. https://www.youtube.com/watch?v=tzrBzZBWtM0 – DESIGN STRATEGY: Solving Business Challenges Through Design
47. https://www.youtube.com/watch?v=On2K52lcM3c – Branding Like a Boss (10 Best Brand Strategy Examples)
48. https://www.youtube.com/watch?v=D3Tu3w67Adc - How to Create a Brand Strategy [Proven 14-Step Framework]

Topics relevant to "Entrepreneurial Skills":

Introduction to Product vs Brand**,** Brand Positioning, How Branding Help to Business Growth planning for developing 'Skill Development through Participative Learning Techniques This is attained through assessment component mentioned in course handout.

Catalogue prepared by	Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	4th BOS , held on 10th August 2021
Date of Approval by the Academic Council	16th Academic Council Meeting held on 23rd October 2021

BSM2026 – Film Production

Course Code: BSM2026	**Course Title: Film Production** **Type of Course: 1] Discipline Elective** **2] Laboratory Integrated**	**L-T-P-C**	2	0	2	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course introduces students to the fundamentals of film production, covering preproduction, production, and postproduction stages. Students will gain skills in scriptwriting, storyboarding, and video and audio editing. Principles of Journalism are integrated into both theory and practical aspects of the course, emphasizing step-by-step learning. Through classroom lectures, industry expert-led workshops, and tailored exercises, students build a solid foundation in film production					
Course Objective	This objective of the Course is to familiarize the learners with the concepts of Film Production and attain **Skill Development** by using **Experiential Learning** techniques.					
Course Outcomes	On successful Completion of this course students shall be able to **Theory Component:** 23. **Understand** the concepts of various Stages involved in Film Production **Practical component:** 24. **Develop** Critical analyzing Film Production concept with Principles and theories associated with it. The learner develops Video and Audio Editing skills, Camera Handling skills to help the Production. 25. **Practice Different** Film Production skills in the development of innovative Short film as well as Documentary Film Production.					
Course Content:	Introduction to film Making, Film Production Planning, Various Departments in Film Production					
Module 1	INTRODUCTION TO FILM MAKING	Assignment Documentation	**15 Hours**			
Topics: History of Films, Types of Films, Process of Film Making. Overview of the film crew, Collaborating and working with team. Introduction to stages of film production. Introduction to film script; treatment, Screenplay-format and layout, Narrative structures, Protagonists and antagonists, Adoption, Genre, Loglines. Story boards						

Module 2	FILM PRODUCTION PLANNING	Assignment Documentation	**14 Hours**

Topics:

Production Planning; Proposals, Budgeting, Scheduling, finding locations, Equipment, Role of production crew, Working with actors. Shot sizes; meaning and motivation, Camera movements- methods and meaning, Master shots, cutaways, inserts, reaction shots, Parallel action, Shooting scripts. Picture composition and framing, working with lighting, color, lenses. Audio field production, microphones, music, sound effects, Shooting with knowledge of editing. Researching, Mini interviews, Essential resources. Pre-production, Production and Postproduction stages.

Module 3	VARIOUS DEPARTMENTS IN FILM PRODUCTION	Assignment Documentation	**16 Hours**

Topics:

Direction Department, cinematography and Photography Department, Sound / Audio Department, Editing and Art Direction Department, Acting, Makeup and Costume, Visual effects,

List of Practical Tasks:

Level 1:

1. Write a short film script (5-10 pages) with a clear plot, characters, and dialogue
2. Create a detailed storyboard for a scene from the written script, including camera angles and movements
3. Film a 2-3 minute scene from the storyboard using basic camera and lighting techniques.

Level 2:

1. Edit the filmed scene using video editing software, incorporating cuts, transitions, and basic effects.
2. Record and edit dialogue, sound effects, and background music for the filmed scene.

Targeted Application & Tools that can be used:

In Film Production, essential tools include cameras like DSLRs and cinema cameras for capturing high-quality footage, and lighting kits for effective scene illumination. For preproduction, scriptwriting software like Final Draft and storyboard tools such as Storyboarder are invaluable. During postproduction, Adobe Premiere Pro and Final Cut Pro are crucial for video editing, while Audacity and Adobe Audition handle audio editing and mixing. These tools collectively empower students to navigate all stages of film production, from concept development to final edit

Text Books

- Jane Barnwell, The Fundamentals of Film Making, AVA book publishing, SA, 2019
- Nicholas Proferes, Film Directing Fundamentals: See Your Film Before Shooting, Focal press, 2012
- A. Goswami, Thin Film Fundamentals, New age international publishers, 1996
- Steven Ascher, The Film Makers Hand Book,2012 penguin USA Publishing

References

49. Amy Villarejo, Film Studies: The Basics, Routledge, 2013

50. Michael K. Hughes, Digital Filmmaking for Beginners A Practical Guide to Video Production, McGrawHill, 2012
51. Steve Katz , Film Directing shot by shot, 1991 Focal Press
52. https://www.youtube.com/watch?v=TARsoxST0tQ&list=PL2vrmieg9tO1GiWpW_-iRaRMLiP-glmnk
53. https://www.youtube.com/watch?v=Nz5zQt5QO3Y
https://www.youtube.com/watch?v=iywvNIWKbPI

Topics relevant to "Skill Development":
History of Film, Types of Film, Film making Process, Production Planning, Camera Movement, Composition and Framing for developing **"Skill Development through Participative Learning Techniques** This is attained through assessment components mentioned in course handout.

Catalogue prepared by	Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM3039 – AI for Multimedia

Course Code: BSM3039	**Course Title: AI for Multimedia** **Type of Course: 1] Discipline Elective** **2] Practical Integrated**	**L-T-P-C**	1	0	4	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course equips multimedia students with the foundational knowledge and practical skills of Artificial Intelligence (AI) and its applications in the multimedia industry. Students will explore various ways generative AI is revolutionizing content creation, personalization, and audience engagement.					
Course Objective	This course empowers Multimedia students through a blend of knowledge acquisition (AI concepts, tools) and hands-on **skill development** (data analysis, content creation, personalization) using **experiential learning techniques**. Students will critically analyze AI's potential, compare human vs. AI-generated content, and creatively apply AI to multimedia projects, from traditional formats to cutting-edge VR/AR experiences.					
Course Outcomes	On successful Completion of this course students shall be able to **Theory Component:** 26. **Understand** core AI and Generative AI concepts. **Practical component:** 27. **Apply** problem-solving techniques to leverage AI tools for data analysis, content creation, and personalization strategies in multimedia projects. 28. **Utilize** AI tools effectively to craft multimedia projects that communicate ideas and information in an impactful and engaging way.					
Course Content:	Demystifying AI for Multimedia,					

Module 1	**Demystifying AI for Multimedia**	Assignment Documentation		**15 Hours**
	Focus: This module provides a beginner-friendly introduction to Artificial Intelligence (AI) and its applications in multimedia, focusing specifically on Generative AI. No prior programming experience is required. • **AI Fundamentals: Introduction to Artificial Intelligence (AI), Machine Learning (ML), and their core concepts.** • **The Multimedia Landscape & AI: Exploring how AI is transforming content creation, consumption, and distribution in multimedia.** • **Demystifying Generative AI: Understanding Generative AI concepts, applications, and different types of generative models.** • **Benefits & Challenges of AI in Multimedia: Discussing the positive impact and potential drawbacks of using AI in multimedia projects.** • **Real-World Applications: Case studies showcasing how AI is being used in various multimedia fields (e.g., animation, film, advertising).**			
Module 2	**AI-Powered Content Creation**	Assignment Documentation		**15 Hours**
	Focus: This module delves into the practical applications of AI for creating multimedia content elements. Students will gain hands-on experience using various AI tools and explore their creative potential. • **AI Tools for Text Creation: Exploring AI tools for scriptwriting, dialogue generation, and content ideation.** • **AI for Audio Creation: Utilizing AI tools for sound effect generation, music composition, and audio editing tasks.** • **The Power of AI for Visuals: Exploring image and video generation with AI, including style transfer and text-to-image techniques.** • **AI in Storytelling & Design: Learning about AI-assisted storyboarding, concept art generation, and basic animation techniques.** • **Ethical Considerations: Discussing responsible use of AI-generated content and potential biases in AI tools.**			
Module 3	**AI for Personalized Content Delivery**	Assignment Documentation		**15 Hours**
	Focus: This module explores how AI can be leveraged to understand user preferences and personalize content delivery in multimedia experiences. • **The Science of Audience Insights: Understanding how AI analyzes user data (demographics, interests, behavior) to gain audience insights.** o **Introduction to User Data and Audience Insights, Techniques for Data Collection in Multimedia (Surveys, Analytics, User Testing), Role of AI in User Data Analysis (No Coding Required!)**			

	• **AI-powered Recommendation Systems: Exploring the algorithms behind AI recommendation systems and their role in content personalization.**
	  ○ **Introduction to Recommendation Systems, Recommendation System Algorithms (Collaborative Filtering, Content-Based Filtering), The Power of AI in Personalized Recommendations**
	• **Personalization Strategies for Multimedia Platforms: Learning how to personalize content delivery for different platforms (social media, streaming, interactive experiences).**
	  ○ **Personalization Strategies for Different Platforms (Social Media, Streaming Services, Interactive Experiences), Content & Interface Personalization Techniques, The Importance of User Experience (UX) in Personalized Content Delivery**
	• **Data Analysis for Personalization : Using user-friendly data visualization tools to analyze sample datasets relevant to multimedia projects.**
	• **The Future of Personalized Experiences: Discussing trends and future applications of AI in personalized multimedia content delivery.**
	  ○ **Emerging Trends in AI for Personalized Multimedia Experiences, Ethical Considerations in Personalized Content Delivery, The Future of AI and User Privacy**

	List of Practical Tasks: Level 1 1. **Experimenting with Text & Audio AI Tools:** Explore free and user-friendly platforms like Jasper (text generation) and Amper Music (AI music composition) ([[invalid URL removed]]) to create text elements and soundtracks for multimedia projects. 2. **AI-powered Visual Creation:** Practice with online tools like NightCafe Creator for image generation and explore video editing tools with AI features like Adobe Premiere Pro. 3. **AI-assisted Storyboarding & Design:** Utilize tools like Storyboard That (with basic AI features) to create storyboards and explore AI-powered design platforms like Canva (with limited free features) for design inspiration. **List of Practical Tasks: Level 2** 4. **Data Analysis with AI Tools (No Coding Required!):** Experiment with user-friendly data visualization tools like Google Data Studio to gain insights from sample datasets relevant to multimedia projects (consider using publicly available datasets). 5. **Building & Testing Recommendation Systems (Simulation):** Simulate building basic recommendation systems using online platforms (consider educational simulations) to understand the logic behind content personalization. 6. **Developing Personalized Content Delivery Strategies:** Design personalized multimedia content delivery strategies for different audience segments, considering platform limitations and user preferences. **Targeted Application & Tools that can be used:**

	Essential tools for AI for Multimedia include OpenCV for computer vision applications and TensorFlow and PyTorch for creating and refining machine learning models. AI-powered solutions for picture and video editing include Adobe Sensei and RunwayML, while ChatGPT and IBM Watson improve natural language processing and automated content creation. With the help of these programs, students may include AI into multimedia work, which fosters innovation and increases productivity and engagement.

	Text Books ○ Amper Music - AI Music Composition Platform, [Online]. Available: [https://welcome.ai/solution/amper] (Accessed on Jun 27, 2024). (Note: Amper Music website may not be accessible at the time of access) ○ Google AI Experiments, [Online]. Available: https://teachablemachine.withgoogle.com/ (Accessed on Jun 27, 2024). ○ Google Data Studio, [Online]. Available: https://datastudio.google.com/u/0/?requirelogin=1 (Accessed on Jun 27, 2024). ○ Nightcafe Creator: AI Art & Text-to-Image Generation, [Online]. Available: https://creator.nightcafe.studio/create (Accessed on Jun 27, 2024). ○ Rytr - AI Writing Assistant, [Online]. Available: https://rytr.me/ (Accessed on Jun 27, 2024). ○ (Additional Resource) R. Foote, "The history of electronic art: A short, factual account," Leonardo Electronic Almanac, vol. 1, no. 1, pp. 59-66, 1994. (This is an example of a Multimedia Design reference) ○ (Additional Resource) J. Yorke, Into the Story: The Foundations of Fiction Writing (The Art of Narrative), Random House, 2001. (This is an example of a Storytelling reference) ○ (Additional Resource) J. Nielsen, Usability Engineering: Interaction Design Heuristics (Interaction-Design.org), Morgan Kaufmann Publishers, 1995. (This is an example of a User Experience (UX) design reference)
	References 54. A. Géron, Hands-On Machine Learning with Scikit-Learn, Keras & TensorFlow Concepts, Tools and Techniques to Build Intelligent Systems (Concepts, Tools, and Techniques to Build Intelligent Systems), 1st ed. O'Reilly Media, 2017. 55. Y. Koren, R. Bell, and C. Volansky, "Matrix factorization techniques for recommender systems," ACM SIGKDD Explorations Newsletter, vol. 4, no. 1, pp. 1-11, 2002. 56. M. Mitchell, Artificial Intelligence: A Guide for Thinking Humans (Perspectives on the Present and Future of Intelligent Machines), MIT Press, 2019. 57. A. Rae, C. Ponte, L. Odena, K. Brockman, C. Cain, J.たとえば, J. Schulman, I. Sutskever, and I. Goodfellow, "End-to-End Training of an AI Dungeon Master," arXiv preprint arXiv:1606.08144, 2016.

	Topics relevant to SKILL DEVELOPMENT: hands-on skills in data visualization, AI tool exploration (text/image/music generation, recommendation systems), and crafting engaging multimedia projects with AI for content creation and personalization. **Skill Development** through **Experiential Learning Techniques.** This is attained through assessment component mentioned in course handout.	
Catalogue prepared by		Mr. B.S.Abhilash Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM2002 – Video Editing

Course Code: BSM2002	**Course Title: Video Editing** **Type of Course: 1] Program Core** **2] Integrated**	**L-T-P-C**	1	0	4	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course will offer Students into the fundamentals of this creative approach by immersing students in the doing of Video Editing. Learn how to Edit Different Video Content using linear and nonlinear techniques with the help of software such as Final cut pro, Adobe Premier pro. Video Editing is a creative method aims to equip the students to become creative and skilled Editing professionals. All stages of the course emphasize step by step learning, giving a solid foundation in Video editing. Students Develop their skills through classroom lectures, extensive hands-on exercise on nonlinear editing software, workshops led by Industry Experts and tailored Exercises.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Video Editing and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Outcomes	On successful Completion of this course students shall able to **Theory Component:** 29. **Understand** the concepts of Video Editing and different types of Video Editing. **Practical Component:** 30. **Develop** the students as a good Video Editor by imparting creativity and problem -solving ability. 31. **Practice** Video Editing skills in the development of innovative Short Films as well as Documentary Film Production					
Course Content:	Introduction to Video Editing, Principles of Video Editing, Working with nonlinear Video Editing Software's.					
Module 1	INTRODUCTION TO VIDEO EDITING	Assignment Documentation	**15 Hours**			
Topics: History of video /Film Editing: The silent period, The early sound Film, Experiments in Editing, - The tools of Digital Video -digital video Hardware – movement in digital video – Digital Audio Editing - capturing a Digital Video – Composition of Digital Video – Timeline Editing – Color Correction -linear and nonlinear Editing techniques -Exporting a Video -Editing for the Genre: Action -Dialogue-comedy-documentary- Planning ,Script writing, Storyboarding for an Video -						

Module 2	PRINCIPLES OF VIDEO EDITING	Assignment Documentation	**14 Hours**

Topics:

The picture Edit and Continuity – The Picture edit and Pace – The sound edits and clarity- The sound edits and Creative Sound- innovations of sound- non linear Editing and Digital Technology-Cinematography, Lighting and Sound for Video -Graphics and Compositing

Module 3	VIDEO EDITING SOFTWARES	Assignment Documentation	**16 Hours**

Topics:

Basic Editing Preparation: creating Log and Organize Footage, Gather Assets , Basic Layout of the Video project, montage Theory , pacing ,Match Cuts , setting mood Through editing – Edit Psychology- subtitles -slow motion -Advanced color correction.

Adobe Premiere Pro: Organize and Import Footages -use of Timeline -Exporting Options- Title Creation- Audio Track- color correction- Transitions – Visual effects.

Adobe After Effects: creating standalone Videos -Animations -Special effects -animated titles.

Adobe Audition: Sample Rate – working with Channels – restore and Mastering Audio- Noise Removal and Audio Mixing -Voice Over adding – Music and Sound effects – Multi track editing -

List of Practical Tasks: Level 1

Project 1: Introduction to Script

1: Develop a story board from an idea / Concept

2: create a Two Column Script for Your Idea / Concept

Project 2: Experience Different Cuts

1: Understand different types of Cuts in Video Editing

2: Create a Montage Video.

List of Practical Tasks: Level 2

Project 3: Building a Scene

1: Experience Shot to shot Transition

2: Create a Scene with Continuity, Matching, and Overlapping.

Project 4: Final project

1: Submit the completed Edited Video as per the Approved Script

Targeted Application & Tools that can be used:

In Video Altering, basic devices incorporate Adobe Debut Master and Last Cut Professional for comprehensive altering capabilities, and DaVinci Resolve for progressed color rectification and reviewing. Extra devices like After Impacts are utilized for movement illustrations and visual impacts, whereas Dauntlessness and Adobe Try out handle sound altering and blending. These applications empower understudies to deliver cleaned, professional-quality video substance by acing different altering procedures and workflows.

Text Books

- WALLACE JACKSON, Digital Video Editing Fundamentals, Apress Publishing 2016
- KEN DANCYGER, The Technique of Film and Video Editing History, Theory, Practice- Focal Press 2007.

References

58. AARON GOOLD, The Video Editing Handbook for Beginners ,2021 , Publisher John Goold.
59. MICHAEL FRIERSON Film &Video Editing Theory: How Editing Creates meaning , A Focal Press Book , published by Routledge 2018.
60. https://www.youtube.com/watch?v=y7Ci_H9bYEk
61. https://www.youtube.com/watch?v=ge-MmahCcWg
62. https://www.youtube.com/watch?v=mkrBVukhZvM
63. https://www.youtube.com/watch?v=KvzOtu-pgf4
64. https://www.youtube.com/watch?v=8BfyROcym2I&list=PLgc0GNip2uYWepaE7eU8Pu37n6pePnK16

Topics relevant to SKILL DEVELOPMENT: History of video /Film Editing , Experiments in Editing, Digital Audio Editing , nonlinear Editing and Digital Technology for **Skill Development through Experiential Learning Techniques.** This is attained through assessment component mentioned in course handout.

Catalogue prepared by	Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	BoS No: 4th held on 10th August 2021
Date of Approval by the Academic Council	16th Academic Council Meeting held on 23rd October 2021

BSM2009 – Audio Technology and Production

Course Code: BSM2009	**Course Title: Audio Technology and Production** **Type of Course: 1] Program Core**	**L-T-P-C**	1	0	4	3

	2] Laboratory Integrated					
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course will offer Students into the fundamentals of the Audio Technology and different stages involved in Audio Production. Learn how to Record, Edit and Mix Audio with the help of Software's like Adobe Audition and Pro Tools Audio Technology and Production is a creative method aims to equip the students to become creative and skilled Audio professionals. All stages of the course emphasize step by step learning, giving a solid foundation in Audio Mixing and Mastering. Students Develop their skills through classroom lectures, extensive hands-on exercise on nonlinear Audio editing software, workshops led by Industry Experts and tailored Exercises.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Audio Technology and Production and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Outcomes	On successful Completion of this course students shall able to **Theory Component:** 32. **Define** the concepts of Audio Editing and different types of Mixing and Mastering Techniques. **Practical Component** 33. **Develop** Critical Listening Skills as well as students will gain knowledge of signal flow and basic audio technology including Mixers, Recorders, Microphones. The learner develops interviewing and field recording skills with practice of the art of storytelling using Sound. 34. **Practice** Audio Production skills in the development of innovative Short Films as well as Documentary Film Production.					
Course Content:	Introduction to Sound Theory, Sound Recording Tools and Techniques, Sound Studio Management and Post Production ,Working with nonlinear Video Editing Software's. Framing and Shot composition with Proper meaning.					

Module 1	INTRODUCTION TO SOUND THEORY	Assignment Documentation	**15 Hours**
Topics: Sound Theory: What is Sound? Nature and characteristics of a Sound Wave, Amplitude, Frequency, Velocity, Wave length, Phase, Harmonic content- perception of sound, Sound recording Frequency and Human Hearing Audio System – Cables and Connections, Routing System, Acoustic setup, Equipment's: Monitors, Mixers, Slaves, Microphones,			
Module 2	SOUND RECORDING TOOLS AND TECHNIQUES	Assignment Documentation	**14 Hours**
Topics: Recording tools and techniques: Working with multiple tracks, Mixing Hierarchies, Mixing Tests/Final, Sampling, effects Processing, Pitch and Frequency, Types of Dynamics: Notated dynamics, Ambient dynamics, Registral dynamics, Textural dynamics, Timbral dynamics- Live Recording: Live Recording Vs. Studio Recording, Equipment's for live recording, features of Live recording, The Browser, Live Sets, Arrangement and Session, Audio and MIDI, Audio Clips and Samples, Saving and Exporting			
Module 3	SOUND STUDIO MANAGEMNET and POST PRODUCTION.	Assignment Documentation	**16 Hours**
Topics: Sound Engineering: Studio Management: Equipment Management- Role of Sound Engineering in Media Industry, Exploring live recording document in outdoor. Foley creation, outdoor production equipment. Audio Post Production Overview -Production Dialogue Editing, sound effects -Basic Digital Audio Workstation (DAW) for Audio Post Production- Noise Reduction -the Moves /Clothing Track- The Footsteps/ Steps Track- The props/Specifics Track – Mixing the Music			
List of Practical Tasks: Level1 **Project 1:** Produce a Radio Advertisement **Project 2:** Produce a Public Service Advertisement for Radio **Project 3:** Produce a Radio Jingle **List of Practical Tasks: Level2** **Project 4:** Record a Multiple Audio Track for a Video File (Duration: minimum of 3 minutes) **Project 5:** Record an Experimental Audio Track (Duration: minimum of 2 minutes)			

Targeted Applications and Tools can be used

Digital audio workstations (DAWs), such as Pro Tools, Logic Pro, and Ableton Live, are essential tools in audio technology and production for audio recording, editing, and mixing. For recording and modifying sound, top-notch microphones, audio interfaces, and MIDI controllers are necessary. Programs like Audacity and Adobe Audition provide robust functionality for sound editing and post-production. These programs and resources give students the abilities they need to produce audio content for a variety of media at a professional level.

Text Books

- Timothy A.Dittmar, Audio Engineering 101 A Beginner's Guide to Music Production,2012 ,Published by Elsevier Focal Press.
- Hilary Wyatt and Tim Amyes , Audio Post Production for Television and Film-An Introduction to Technology and Techniques 2005 ,Focal Press

References

65. Mark Cross, Audio Post Production for Film and Telivision,2013,Berklee Press
66. Jonathan Wyner, Audio Mastering Essential Practices, Berklee Press
67. https://www.youtube.com/watch?v=qonbJHkxH8w
68. https://www.youtube.com/watch?v=iUttXgBDKRI
69. https://www.youtube.com/watch?v=nmnR7uDBPsk

https://www.youtube.com/watch?v=N-goa27BSJs

Topics relevant to SKILL DEVELOPMENT: Sound Theory, Nature and characteristics of a Sound Wave ,sound Recording tools and techniques for **Skill Development through Experiential Learning Techniques** This is attained through assessment component mentioned in course handout

Catalogue prepared by	Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	8th Board of Studies held on 7th of July 2023
Date of Approval by the Academic Council	21st AC Meeting held on 6th Sep 2023

BSM2065 – 3D Lighting and Rendering

Course Code: BSM2065	**Course Title: 3D Lighting and Rendering** **Type of Course: 1] Discipline elective** **2] Integrated**	**L-T-P-C**	2	0	2	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course equips the students with the fundamentals of Lighting and Rendering. Navigating 3D Software's interface, explore lighting concepts, create realistic materials, and render stunning visuals using 3D built-in renderers (Mental Ray/alternative). Gaining an edge in 3D animation, game art, or any field requiring high-quality renders.					
Course Objective	This Objective of the Course is to familiarize the learners with the concepts of 3D Lighting and Rendering and attain **Skill Development** by using **Experiential Learning** techniques					
Course Outcomes	On successful Completion of this course students shall be able to Theory Component: 35. **Understand** the concepts of 3D Lighting and Rendering Practical Component: 36. **Develop** the students as a good 3D Lighting and Rendering Artist by imparting creativity and problem -solving ability. 37. **Produce** 3D Lighting and Rendering skills in the development of innovative 3D Short Films as well as Full-fledged movies					
Course Content:	Foundations of Lighting & Maya Interface, Lighting Techniques & Rendering Workflow, Advanced Shaders & Refining the Rendering Pipeline					
Module 1	Foundations of Lighting & Maya Interface	Assignment Documentation	**15 Hours**			

Topics:

- **Topics:**
  - Introduction to Maya interface customization for lighting & rendering.
  - Navigation techniques relevant for lighting: working planes, viewing modes, and environment manipulation.
  - Understanding light types (point, directional, area, spot) and their properties.
  - Light attributes: intensity, color temperature, falloff, shadows, and advanced settings.
  - Creating basic and intermediate lighting setups for various moods (realistic, dramatic, etc.).
  - Introduction to the Maya rendering environment and setting up basic render settings.
  - Material properties for realistic rendering: diffuse, specular, reflection, and their impact on light interaction.
  - Creating basic materials in Maya using Lambert and Phong shaders.
  - Introduction to Physically Based Rendering (PBR) principles (optional).

Module 2	Lighting Techniques & Rendering Workflow	Assignment Documentation	**14 Hours**

- **Topics:**
  - Advanced light manipulation: light linking, gobos, and falloff types for complex lighting effects.
  - Understanding the rendering process: from scene setup to final output.
  - Render settings in Maya: anti-aliasing, resolution, output formats.
  - Introduction to render passes for compositing flexibility (beauty pass, shadow pass, etc.).
  - Working with Maya's built-in renderer (Mental Ray or alternative): setting up render settings, assigning materials, and basic troubleshooting.

Module 3	Advanced Shaders & Refining the Rendering Pipeline	Assignment Documentation	**16 Hours**

- **Topics:**
  - Introduction to advanced shaders in Maya (VRay/Arnold or alternative).
  - Creating complex materials with advanced shader properties (subsurface scattering, anisotropic materials, layered shaders).
  - Introduction to lighting for specific purposes (animation, product visualization).
  - Advanced rendering techniques: multi-pass rendering, using render layers for selective rendering, and optimizing render settings for efficiency.
  - Refining the rendering workflow: optimizing lighting setups, material creation, and render settings for desired results.

List of Practical Tasks:

Level 1:

1. **Light Setup for a Product:** Choose a simple product (e.g., mug, apple) and create lighting setups for different moods (realistic, dramatic, product showcase). Experiment with light types and properties.
2. **Material Exploration:** Explore basic material properties (diffuse, specular, reflection) by creating materials for different objects (metal, wood, fabric) and observe how they interact with light.
3. **Interior Lighting Scene:** Create a simple interior scene (room, hallway) and experiment with basic lighting setups for different purposes (daytime, evening mood lighting). Render the scene with basic settings.

Level 2:

6. **Advanced Light Manipulation:** Create a scene with multiple light sources and explore advanced techniques like light linking and gobos. Analyse the impact on shadows and overall lighting effects.
7. **Render Pass Exploration:** Choose a scene from Module 1 and recreate it with render passes enabled (e.g., beauty pass, shadow pass). Experiment with compositing the passes in basic image editing software (optional) to understand their benefits.
8. **Render Settings for Different Outputs:** Render the same scene from Module 2 with different render settings (resolution, anti-aliasing) and compare the results. Analyze the trade-off between quality and rendering time.
9. **Advanced Shaders for Complex Material:** Choose a complex material (e.g., car paint, wet rock) and explore creating it using advanced shaders (VRay/Arnold or alternative). Experiment with advanced properties like subsurface scattering for realistic effects.
10. **Refined Rendering Workflow:** Choose a scene from Module 2 and optimize your lighting setups, material creation, and render settings. Aim to achieve a significant reduction in rendering time while maintaining quality.

Targeted Application & Tools that can be used: This curriculum ensures that students gain a solid foundation in Lighting and Rendering concepts, using software like Maya, progressing from basic skills to the creation of various refined rendered outputs.
Autodesk Maya

Text Books

1. Chua, E., & Warrenfagundes. (2021). *The Art of Maya Rendering* (2nd ed.). John Wiley & Sons.
2. Sosa, J. (2019). *Maya Lighting & Rendering: A Beginner's Guide* (2nd ed.). Focal Press.
3. Mulani, R., Enciso, A., & Bader, D. (2014). *Advanced RenderMan: Creating Realistic Images* (2nd ed.). AK Peters/CRC Press.
4. Pharr, M., & Humphreys, G. (2010). *Physically Based Rendering: From Theory to Implementation* (3rd ed.). Morgan Kaufmann Publishers.
5. *Maya: The Complete Guide* (Latest Edition). Autodesk Official Press.
6. Michael Seymour and Jess Blakeley**, The Art of Maya Lighting: Mastering Light, Shadow, and Atmosphere** (Focal Press)
7. R. Ellis, **Maya: Lighting and Rendering** (Focal Press)
8. Colin Vaz, **Essentials of Lighting for Animation, Games and VFX** (Focal Press)

9. Jeremy Vaughan, **High-Quality Rendering with Maya and Arnold** (CRC Press)
References 70. https://www.youtube.com/watch?v=njC8Z3knaDI – Maya Basics Lighting and Rendering 71. https://www.youtube.com/watch?v=w8mDYJMA-Cg – 3 Point Lighting in Maya 72. https://www.youtube.com/watch?v=iUfCRXbL9ZM – Arnold Lighting and Rendering 73. https://www.youtube.com/watch?v=-EMcjBRBqos – Arnold Lighting and Rendering 74. https://www.youtube.com/watch?v=kADhc51BkbI - Arnold Lighting and Rendering 75. https://www.youtube.com/watch?v=t4yURtShogM – Arnold Exterior lighting 76. https://www.youtube.com/watch?v=1MyoBjwIV64 - Arnold's Lights and Incandescence
Topics relevant to "SKILLDEVELOPMENT": Information Communicated through Lighting and Rendering, Scientific concepts involved, Types of Lights, Shadows, Occlusion, Lighting Environments and Architecture for **SKILL DEVELOPMENT** through **Experiential Learning Techniques.** This is attained through assignment components mentioned in course handout.

Catalogue prepared by	Mr. Vijay Kumar. D Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM2066 – Digital Compositing

Course Code: BSM 2066	**Course Title: Digital Compositing** **Type of Course: 1] Program Core** **2] Practical Integrated**	**L-T-P-C**	1	0	4	3

Version No.		1.0
Course Pre-requisites		**Nil**
Anti-requisites		**NIL**
Course Description		This course equips graduating students with foundational knowledge and skills to create professional-level visual effects using industry-standard compositing software, Adobe After Effects and Nuke. Students will gain technical proficiency in compositing techniques like layering, masking, keyframing, color correction, and green screen keying, developing expertise in both software functionalities. They will understand compositing principles, manipulate elements, create visual effects, and integrate elements seamlessly into real-world footage. The course emphasizes hands-on learning through practical assignments in After Effects and Nuke, with projects that progressively challenge students' skills. Professional practices and collaboration strategies are integrated, preparing students for real-world workflows in the film, television, and motion graphics industries.
Course Objective		The course's objective is to familiarize learners with Digital Compositing concepts and attain Skill Development of students by using Experiential Learning techniques.
Course Outcomes		On successful Completion of this course students shall be able to **Theory Component:** 38. **Understand:** The core principles of digital compositing, including layering images and video, manipulating elements, and creating visual effects. **Practical component:** 39. **Produce** Proficiency in layering images and video footage for compositing projects. Skills in utilizing masking techniques (rotoscoping, shape masks) for precise image manipulation. 40. **Develop** Composited images and videos that demonstrate effective layering and masking techniques.
Course Content:		foundations of Digital Compositing & After Effects, Intermediate Compositing Techniques in After Effects & Nuke , Advanced Compositing Techniques & Professional Practices.

Module 1	**Foundations of Digital Compositing & After Effects**	Assignment Documentation	Observation/ Demo/ Videos/ Interaction/	**15 Hours**

			Discussion	
	• **Focus:** This extended module establishes a strong foundation in compositing principles, core functionalities of Adobe After Effects, and basic Nuke concepts. • **Topics:** o Fundamentals of Compositing: Understanding layering, manipulating elements, and creating visual effects. o After Effects Interface & Essential Tools: Exploring the workspace, essential tools for compositing, and navigating the interface. o Layering & Masking Techniques: Learning to layer images/video, utilize masking techniques (rotoscoping, shape masks) for precise manipulation. o Working with Layers & Blend Modes: Understanding layer properties, blend modes for compositing effects (multiply, screen), and opacity controls. o Introduction to Keyframing & Animation: Learning basic keyframing principles to animate layer properties (position, scale, opacity) over time. o Introduction to Motion Tracking: Exploring basic motion tracking concepts for integrating elements with moving objects. o **Introduction to Nuke (Optional - Last 2 weeks):** Exploring the Nuke interface, node-based workflow, and basic concepts for compositing operations.			
Module 2	**Intermediate Compositing Techniques in After Effects & Nuke**	Assignment Documentation	Observation/ Demo/ Videos/ Interaction/ Discussion	**14 Hours**

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- **Focus:** This module builds upon the foundation, introducing intermediate compositing techniques in After Effects and core functionalities of Nuke for professional compositing.
- **Topics:**
  - Advanced Layer Techniques: Exploring layer parenting, groups, pre-compositions, and adjustment layers for efficient workflows.
  - Text & Motion Graphics in After Effects (Optional): Creating text elements and using animation presets/plugins (optional) for basic motion graphics.
  - Color Correction Techniques: Understanding color correction tools (levels, curves) for color grading and balancing footage.
  - Nuke Workflows & Node-Based Compositing: Building compositing workflows in Nuke using various nodes (read, grade, merge) for real-world scenarios.
  - Rotoscoping & Keying Techniques: Exploring advanced rotoscoping workflows for clean element isolation and refining keying techniques (chroma keying).
  - Working with Channels & Roto/Paint Tools (Nuke): Understanding channels for managing color information and exploring roto/paint tools for refining masks and creating effects.

Assignments: Students will create projects that involve: * Advanced layer techniques for efficient compositing. * Color correction for compositing. * Basic motion graphics elements in After Effects (Optional). * Compositing tasks using a node-based workflow in Nuke.
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<tr><td>Module 3</td><td>Advanced Compositing Techniques & Professional Practices</td><td>Assignment
Documentation</td><td>Observation/ Demo/ Videos/ Interaction/ Discussion</td><td>16 Hours</td></tr>
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- **Focus:** This module delves into advanced compositing techniques, explores professional practices, and prepares students for industry workflows.
- **Topics:**
  - Advanced Color Correction & Look Development: Exploring advanced color correction techniques, color grading tools, and look development processes.
  - Matchmoving & Integration Techniques: Understanding matchmoving basics for integrating elements into real-world footage seamlessly.
  - Professional Compositing Workflows & Collaboration: Learning about professional compositing workflows, adhering to industry standards, and collaborating with other departments in a production pipeline.
  - Compositing for Specific Media (Optional): Exploring considerations for different media (film, television, motion graphics) (depending on program focus).
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	○ **Assignments:** Students will create projects that involve: * Advanced keying techniques for green screen compositing. * Applying particle systems for visual effects in After Effects (Optional). * Completing advanced compositing tasks in Nuke using a node-based workflow ○ **Assignments:** Students will complete a mini animation project, incorporating advanced techniques, receiving and implementing feedback, and creating a final presentation suitable for a portfolio or demo reel.
	List of Practical Tasks: Level 1 1. **Compositing a Product Showcase:** Layer a product image onto a background scene, utilizing masks (e.g., shape masks) to create a realistic product placement. 2. **Day-to-Night Transformation:** Composite two images (daytime and night time) to create a smooth transition into a night time scene, using blend modes (e.g., multiply) to achieve the desired effect. 3. **Simple Text Animation:** Create a title card with animated text using keyframes to control its position, scale, and opacity over time. 4. **Simulating Smoke with Masks:** Use a smoke texture image and advanced masking techniques (e.g., rotoscoping) to create a dynamic smoke effect within a scene. 5. **Integrating a Moving Object:** Track a moving object within footage (optional) and composite a separate element onto the moving object using basic motion tracking principles **List of Practical Tasks: Level 2** 1. **Replicate a Simple Composite in Nuke:** Recreate a basic composite completed in After Effects using the node-based workflow in Nuke. 2. **Colour Correcting in Nuke:** Apply basic colour correction tools (e.g., levels) within Nuke to adjust the colour balance of a composite. 3. **Compositing with Pre-Compositions:** Create a multi-layered composite scene with efficient organization by utilizing pre-compositions for specific elements or effects. 4. **Colour Grading for Mood:** Apply colour correction techniques in After Effects to achieve a specific mood or atmosphere within your composite (e.g., warm and inviting, cool and futuristic). 5. **Green Screen Keying Challenge:** Composite a character with green screen footage onto a background environment by refining keying techniques to achieve a clean separation between the character and the green screen. **Targeted Application & Tools that can be used:** In the field of digital compositing, several key applications and tools are essential for creating high-quality visual effects. Adobe After Effects and Nuke are the primary software used for compositing, offering powerful features for layering, masking, keyframing, and color correction. These tools enable the seamless integration of elements into real-world footage. For additional support, tools like Mocha Pro can be used for advanced planar tracking and rotoscoping, while Red Giant's Trapcode Suite offers a range of plugins for creating complex

	particle effects. These applications collectively provide the technical capabilities and creative flexibility needed for professional-level digital compositing projects. **Textbooks** 1. Johnson, S., & Lainsbury, I. (2020). *After Effects Compositing and Visual Effects: The Practical Guide* (4th ed.). John Wiley & Sons. 2. Cuevas, A. *After Effects Apprentice: Classroom in a Book* (Latest Edition). Adobe Press. 3. Coyle, I. (2018). *Motion Graphics and Compositing with After Effects* (2nd ed.). Focal Press. 4. Lemkin, R., & Allen, D. (2019). *Nuke Compositing: The Essential Guide* (3rd ed.). Focal Press. 5. Watkins, A., & Watkins, J. (2014). *Learning Nuke* (2nd ed.). Focal Press. 6. Ron Brinkmann. **The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics** (Focal Press) 7. Chris Meyer. **After Effects Apprentice** (Peachpit Press) 8. Aaron Blaise. **Professional Digital Compositing: Essential Tools and Techniques** (Focal Press) 9. Steve Wright (Elsevier). **Digital Compositing for Film and Video** 10. Steve Johnson. **VFX Compositing: Tricks, Tips, and Techniques Used by Visual Effects Artists** (Focal Press) 11. Jeffrey A. Okun . **The VES Handbook of Visual Effects** (Focal Press) 12. **After Effects Classroom in a Book** Adobe Press Natasha Rothera. **Nuke for Compositors** (Focal Press)
	References 77. https://www.youtube.com/watch?v=sfkaCESPE5c– Compositing in After effects 78. https://www.youtube.com/watch?v=PHgZL8iSbNo&list=PLUHe1EXYRdlZPgUy4SqHl8Vl4eEPcplKZ – Compositing in After effects complete project based tutorials 79. https://www.youtube.com/watch?v=wZ9skxwLa7g&list=PLfURStsUG_8Tdw3hE4Td9GHyf3l2D9lsR – Complete digital compositing in Nuke
	Topics relevant to SKILL DEVELOPMENT: Digital compositing, rotoscope, match moving, motion tracking for **Skill Development** through **Experiential Learning Techniques.** This is attained through the assessment component mentioned in the course handout.

Catalogue prepared by		Mr. Prakash.KP Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM3038 – Digital Matte Painting

Course Code: BSM 3038	**Course Title: Digital Matte Painting** **Type of Course: 1] Open Elective** **2] Practical Integrated**	**L-T-P-C**	1	0	4	3
Version No.	1.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**NIL**					
Course Description	This course equips graduating students with the skills to create stunning digital matte paintings. Starting with foundational software use and painting techniques, students' progress to environment design, storytelling through matte painting, and advanced compositing. Through a combination of lectures, exercises, and a culminating project, students build a strong portfolio, ready for the intermediate level and beyond.					
Course Objective	The objective of the course is to familiarize the learners with the concepts of Digital Matte Painting and attain **Skill Development** of student by using **Experiential Learning** techniques.					
Course Outcomes	On successful Completion of this course students shall able to **Theory Component:** 1. Describe Core concepts of digital painting: color theory, composition, perspective, value studies. **Practical component:** 2. Develop the Ability to create believable and consistent environments. 3. Produce Visually compelling environments for matte paintings.					
Course Content:	Foundation Skills and Techniques, Building Environments and Storytelling, Intermediate Techniques and Project Development					

Module 1	**Foundation Skills and Techniques**	Assignment Documentation		**15 Hours**
	• **Topics:** ○ **Digital Painting Fundamentals:** Exploring basic drawing and painting principles applicable to digital art. This includes and revises color theory, composition, perspective, and value studies. ○ **Software Introduction:** Learning the core functionalities and workflows in chosen software (e.g., Photoshop). This includes brush tools, layers, masking, adjustments, and filters. ○ **Photo Manipulation:** Techniques for integrating and manipulating photographs to create realistic environments. This covers basic selection tools, color correction, and blending techniques. ○ **Perspective Drawing:** Understanding and applying basic perspective drawing principles to create believable and consistent environments. ○ **Lighting and Atmosphere:** Introduction to lighting theory and its application in digital matte painting. This includes creating different lighting moods and atmospheric effects like fog and haze. ○ **Introduction to Matte Painting Techniques:** Exploring basic matte painting workflows. This includes painting techniques for creating sky replacements, set extensions, and adding distant elements.			
Module 2	**Building Environments and Storytelling**	Assignment Documentation		**14 Hours**
	• **Topics:** ○ **Environment Design:** Understanding how to design and build visually compelling environments for matte paintings. This includes researching reference materials, creating mood boards, and establishing a consistent style. ○ **Texturing Techniques:** Learning techniques for creating realistic textures for various surfaces (e.g., rock, grass, wood) using brushes, procedural textures, and photo manipulation. ○ **Advanced Painting Techniques:** Expanding painting skills, exploring techniques for creating complex details, such as vegetation, buildings, and distant landscapes. ○ **Matching Techniques:** Mastering techniques for seamlessly integrating matte paintings into live-action footage. This includes color correction, lighting matching, and depth manipulation. ○ **Storytelling through Matte Painting:** Understanding how matte paintings contribute to visual storytelling in film and video. This explores portraying mood, setting the scene, and establishing scale.			
Module 3	**Intermediate Techniques and Project Development**	Assignment Documentation		**16 Hours**

	• **Topics:**
	  ○ **Introduction to Compositing:** Basic compositing techniques to integrate various elements (e.g., painted elements, 3D models) into a single cohesive image.
	  ○ **Advanced Brushwork:** Exploring advanced brush techniques for creating realistic details and textures.
	  ○ **3D Integration:** Introduction to integrating basic 3D models with matte paintings for increased realism and depth.
	  ○ **Advanced Compositing Techniques:** Exploring advanced compositing techniques such as advanced masking, motion blur, and particle effects.
	  ○ **Matte Painting for Different Genres:** Understanding how matte painting adapts to different film genres, such as sci-fi, fantasy, and historical films.
	  ○ **Project Development:** Students develop and execute a self-directed matte painting project, applying learned skills and techniques. This includes creating a mood board, storyboarding, concept art, and final execution.
	  ○ **Critique and Portfolio Development:** Students receive feedback on their projects and learn how to present their work effectively for portfolio development.

	List of Practical Tasks: Level1 1. Create 2 digital paintings exploring basic color theory concepts (primary/secondary colors, complementary colors) and compositional techniques (rule of thirds, leading lines). 2. Select a photograph and manipulate it to create a new environment. Apply techniques like color correction, blending, and basic selection tools to achieve a realistic outcome. 3. Create a digital environment using one-point perspective, focusing on accurate vanishing points and consistent horizon lines. 4. Create 2 digital paintings depicting the same environment under different lighting conditions (e.g., morning light, sunset). Experiment with lighting theory to create distinct moods. **List of Practical Tasks: Level2** 5. Choose a photograph with an unremarkable sky and replace it with a digitally painted sky of your own creation. Ensure seamless integration through color matching and perspective alignment. 6. **Match It Up!:** Choose a live-action footage clip and create a matte painting that seamlessly integrates into the scene. Focus on color correction, lighting matching, and depth manipulation for a believable result. (This can be done with freely available sample footage) 7. Develop a short storyboard depicting a scene. Create a digital matte painting based on the storyboard, focusing on using visual elements to convey the narrative and mood.

	Targeted Application & Tools that can be used: This curriculum ensures that students gain a solid foundation in Digital Matte Painting, using software is like Photoshop, progressing from basic skills to the creation of various visually compelling environments for matte paintings. Adobe Photoshop, After Effects, Nuke	
	Text Books 1. Lynch, C., & Blaise, A. (2019). *Digital Painting for Beginners: Essential Skills and Techniques for Creating Stunning Art* (1st ed.). John Wiley & Sons. 2. Valentine, S., & Browne, A. (2021). *Learning Photoshop for Digital Painting: A Beginner's Guide to Creating Art on Your Computer* (1st ed.). John Wiley & Sons. 3. Niederhauser, J., & Waugh, R. (2015). *The Art of Scenic Design: A Practical Guide for Theatre, Film, and Television* (4th ed.). Routledge. 4. Roberson, D. (2005). *Matte Painting: Creating Landscapes for Film and Television* (2nd ed.). Focal Press. 5. Gossett, C., & Blaise, A. (2011). *Advanced Techniques for Digital Painters* (1st ed.). Focal Press.	
	References 80. https://www.youtube.com/watch?v=PX5bj9aPrqI – How to Create Matte Painting ! Simple & Easy in Photoshop 81. https://www.youtube.com/watch?v=4S_9WoljIlY – Matte Painting Manipulation 82. https://www.youtube.com/watch?v=qknzkwcZ9fY - Photo Manipulation In Photoshop CC 83. https://www.youtube.com/watch?v=ukef_0mQLH8&list=PLMfnrlzyrus2ykJvavea8_wHXnDL8M4yW – Matte Painting Series	
	Topics relevant to SKILL DEVELOPMENT: Learning digital matte painting fundamentals for Matte painting, set extension, compositing, environment design for **Skill Development** through **Experiential Learning Techniques.** This is attained through the assessment component mentioned in the course handout.	
Catalogue prepared by		Mr. Vijay Kumar. D Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on		10th Board of Studies held on 4th of July 2024
Date of Approval by the Academic Council		

BSM 3002 Summer Internship

Course Code: BSM3002	**Course Title: Summer Internship** **Type of Course: NTCC, School Core**	**L-T-P- C**	0	0	0	4
Version No.	**1.0**					

Course Pre-requisites	**Knowledge and Skills related to all the courses studied in previous semesters.**
Anti-requisites	**NIL**
Course Description	Students observe art, craft, technics and Culture in action, develop an awareness of the method of design explorations, and often get an opportunity to see, study, manipulate and apply design principles in value additions. Students learn about the implementation of the principles of design they have learnt in class, when they observe multidisciplinary teams of experts from different streams of design, economics, and management deal with techno-economic problems at the micro and macro levels. Finally, it enables them to develop and refine their language, communication and inter-personal skills, both by its very nature, and by the various evaluation components, such as seminar, group discussion, project report preparation, etc. The broad-based core education, strong in design principles rich in heuristics, experiential learning and design thinking tools provide the foundation necessary for the student to understand appropriately the nature of real-life problems. The students have options to pursue this course as either Project Work and Dissertation at the university, or Project Work in an Industry/ Company/ Research Laboratory, or Internship Program in an Industry/Company.
Course Objectives	The objective of the course is to familiarize the learners with the concepts of Tasks based learning and attain Employability Skills through Experiential Learning techniques.
Course Outcomes	On successful completion of this course the students shall be able to: 1. Identify the design problems related to local, regional, national or global needs. 2. Apply appropriate techniques or modern design tools for solving the potential problem 3. Design the tasks as per the standards and specifications. 4. Interpret the events and results for meaningful conclusions. 5. Appraise project findings and communicate effectively through scholarly publications.
Catalogue prepared by	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)
Recommended bythe Board of Studies on	4th BOS, held on 10th August 2021
Date of Approval bythe Academic Council	16th Academic Council Meeting held on 23rd October 2021

BSM3004 Mini Project

Course Code: BSM3004	**Course Title: Mini Project** **Type of Course: NTCC, School Core**	**L-T-P- C**	0	0	0	5
Version No.	**1.0**					
Course Pre-requisites	**Knowledge and Skills related to all the courses studied in previous semesters.**					
Anti-requisites	**NIL**					
Course Description	Students can explore multimedia design concepts and techniques firsthand in the Multimedia Mini Project course. Students will learn how to create interactive multimedia material, including graphics, audio, video, and animation, through a series of hands-on projects. This course, which places equal emphasis on technical proficiency and creativity, gives students the tools they need to create captivating multimedia presentations and projects. The students have options to pursue this course as either Project Work and Dissertation at the university, or Project Work in an Industry/ Company/ Research Laboratory, or Internship Program in an Industry/Company.					
Course Objectives	The objective of the course is to familiarize the learners with the concepts of Tasks based learning and attain Employability Skills through Experiential Learning techniques.					
Course Outcomes	On successful completion of this course the students shall be able to: 6. Develop interactive multimedia presentations integrating various media elements, including graphics, audio, video, and animation. 7. Utilize audio and video editing techniques to enhance and optimize multimedia content, ensuring high-quality output. 8. Apply fundamental design principles such as color theory, typography, layout, and composition to create visually appealing multimedia content. 9. Create dynamic, multi-media presentations by combining animation, audio, video, and graphics with other media elements.					
Catalogue preparedby	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)					
Recommended by the Board of Studies on	4th BOS, held on 10th August 2021					
Date of Approval bythe Academic Council	16th Academic Council Meeting held on 23rd October 2021					

DES2140 – Project Management Essentials for Designers

Course Code: DES2140	**Course Title: Project Management Essentials for Designers** **Type of Course: 1] Open Elective** **2] Theory**	**L-T-P-C**	3	0	0	3

Version No.		1.0
Course Pre-requisites		**Nil**
Anti-requisites		**NIL**
Course Description		This open elective equips design students (Bachelor of Design & Bachelor of Science in Multimedia) with the fundamental principles and practical tools of project management. Through lectures, discussions, and hands-on activities, students will gain a solid understanding of the project management life cycle, develop essential skills for planning, organizing, scheduling, and executing design projects effectively. This course is designed for students with no prior project management experience.
Course Objective		This course equips design and multimedia students with **Skill Development** in project management fundamentals through **Participative learning.** Students will master core concepts, apply methodologies to design projects, develop planning and communication skills, and learn to evaluate progress and manage risks for successful project execution
Course Outcomes		On successful completion of this course students shall be able to 41. **Define** key project management terminology and explain the project life cycle. 42. **Use** project management tools and templates for planning, scheduling, and budgeting design projects. 43. **Identify** and manage project risks, ensuring project deliverables are met on time and within budget.

Course Content:		Introduction to Project Management, Planning and Execution, Project Monitoring and Control,		
Module 1	**Introduction to Project Management**	Assignment Documentation		**15 Hours**
	Focus: • **Topics:** o Introduction to Project Management o Project Life Cycle (Initiation, Planning, Execution, Monitoring & Control, Closure) o Project Management Frameworks (Agile, Waterfall, Hybrid) o Project Scope Management o Project Stakeholder Management			
Module 2	**Planning and Execution**	Assignment Documentation		**15 Hours**
	Focus: • **Topics:** o Work Breakdown Structure (WBS) Development o Project Scheduling Techniques (Gantt Charts, PERT Charts) o Project Resource Management (Time, Budget, Human Resources) o Communication Management o Collaboration Tools for Designers (e.g., Slack, Google Drive)			
Module 3	**Project Monitoring and Control**	Assignment Documentation		**16 Hours**
	Focus: • **Topics:** o Project Risk Management (Identification, Analysis, Mitigation) o Project Monitoring and Control Techniques (Earned Value Management) o Project Change Management o Project Communication Strategies o Project Performance Evaluation Activities: • Identifying and mitigating potential risks in a design project scenario • Project Tracking Exercise: Monitoring project progress using Earned Value Management techniques			

	• Individual Project: Developing a project management plan for a self-directed design project • Course Reflection: Evaluating personal learning outcomes and course effectiveness.
	List of Practical Tasks: **Level1:** 1. Case Studies: Analyzing successful and unsuccessful design projects 2. Team Building Exercise: Defining project scope and identifying stakeholders for a design project 3. Project Management Software Introduction (e.g., Trello, Asana) **List of Practical Tasks:** **Level2:** 4. Developing a WBS for a design project scenario 5. Creating a project schedule using a chosen scheduling tool 6. Team Project: Planning a collaborative design project using project management tools **Targeted Applications and Tools can be used** According to Project Management Essentials for Designers, software like Microsoft Project and Smartsheet helps with project planning and scheduling, while tools like Trello and Asana are essential for task management and workflow structure. Teams can communicate more effectively thanks to collaboration technologies like Microsoft Teams and Slack, and Adobe Creative Cloud guarantees that creative materials are integrated seamlessly. With the use of these tools, designers may efficiently organize, carry out, and supervise projects, guaranteeing the prompt and successful completion of design work. **Text Books** ○ Design Management: A Handbook (2nd Edition) by Richard Buchanan (Editor)

		○ Project Management for Dummies (6th Edition) by Stanley E. Portny ○ The Art of Project Management by Scott Berkun
		References 84. H. Kerzner, Harold Kerzner's Project Management: A Systems Approach to Planning, Scheduling, and Controlling Projects (12th Edition), John Wiley & Sons, 2017. 85. W. Lipke, The Design Thinking Process: A Guide for Designers of Strategy, Innovation and Change (5th Edition), Bloomsbury Publishing, 2018. 86. Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK Guide) (Sixth Edition), Project Management Institute, 2017.
		Topics relevant to SKILL DEVELOPMENT: This course equips design students with project management **skill Development** through **Participative Learning Techniques**. Students engage in hands-on activities and teamwork, fostering practical abilities in planning, communication, and risk management for successful design projects. This is attained through assessment component mentioned in course handout.
Catalogue prepared by		Mr. B. S. Abhilash Assistant Professor Mr. Abhinav Srivastava Assistant Professor SOD
Recommended by the Board of Studies on		**10th Board of Studies held on 4th of July 2024**
Date of Approval by the Academic Council		24th AC dated 03.08.2024

BSM 3006 On Job Training/Internship/In-House Live Project

Course Code: BSM3006	**Course Title: On Job Training/Internship/In-House Live Project** **Type of Course: NTCC, Program Core**	**L-T-P- C**	0	0	0	6
Version No.	**1.0**					
Course Pre-requisites	**Knowledge and Skills related to all the courses studied in previous semesters.**					
Anti-requisites	**NIL**					
Course Description	Students observe art, craft, technics and Culture in action, develop an awareness of the method of design explorations, and often get an opportunity to see, study, manipulate and apply design principles in value additions. Students learn about the implementation of the principles of design they have learnt in class, when they observe multidisciplinary teams of experts from different streams of design, economics, and management deal with techno-economic problems at the micro and macro levels. Finally, it enables them to develop and refine their language, communication and inter-personal skills, both by its very nature, and by the various evaluation components, such as seminar, group discussion, project report preparation, etc. The broad-based core education, strong in design principles rich in heuristics, experiential learning and design thinking tools provide the foundation necessary for the student to understand appropriately the nature of real-life problems. The students have options to pursue this course as either Project Work and Dissertation at the university, or Project Work in an Industry/ Company/ Research Laboratory, or Internship Program in an Industry/Company.					
Course Objectives	The objective of the course is to familiarize the learners with the concepts of Tasks based learning and attain Employability Skills through Experiential Learning techniques.					
Course Outcomes	On successful completion of this course the students shall be able to: 10. Identify the design problems related to local, regional, national or global needs. 11. Apply appropriate techniques or modern design tools for solving the potential problem 12. Design the tasks as per the standards and specifications. 13. Interpret the events and results for meaningful conclusions. 14. Appraise project findings and communicate effectively through scholarly publications.					
Catalogue preparedby	Mr. Melwin Asst. Professor SOD Multimedia					
Recommended bythe	10th Board of Studies held on 4th of July 2024					

Board of Studies on	
Date of Approval by the Academic Council	24th AC dated 03.08.2024

BSM 3005 Portfolio Development

Course Code: BSM3005	**Course Title: Portfolio Development** **Type of Course: NTCC, School Core**	**L-T-P- C**	0	0	0	6
Version No.	**1.0**					
Course Pre-requisites	**Knowledge and Skills related to all the courses studied in previous semesters.**					
Anti-requisites	**NIL**					
Course Description	The Multimedia Portfolio Development course is designed to guide students in creating a comprehensive and professional portfolio showcasing their multimedia skills and projects. Through a series of workshops, critiques, and hands-on activities, students will learn how to curate and present their work effectively across various multimedia platforms. Emphasizing both artistic creativity and technical proficiency, this course prepares students to confidently display their talents to potential employers or clients.					
Course Objectives	The objective of the course is to familiarize the learners with the concepts of Tasks based learning and attain Employability Skills through Experiential Learning techniques.					
Course Outcomes	On successful completion of this course the students shall be able to: 15. Present multimedia projects effectively within the portfolio, including images, videos, audio clips, animations, and interactive elements. 16. Apply design principles such as layout, typography, color theory, and visual hierarchy to create an aesthetically pleasing and professional portfolio. 17. Develop the ability to confidently discuss and present their portfolio during job interviews, client pitches, or freelance opportunities. 18. Create a cohesive and visually appealing portfolio that demonstrates a range of skills and styles.					

Catalogue prepared by	Mr. Melwin Samuel Assistant Professor, Multimedia (SOD)
Recommended by the Board of Studies on	10th Board of Studies held on 4th of July 2024
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