MMED-1057

MOTION DESIGN 1

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MMED-1057

COURSE DESCRIPTION

This course will introduce students to the core principles of motion design. Emphasis will be on 3D modeling, typography, colour theory, lighting and animation principles as related to on-screen graphics and animations.

COURSE LEARNING OUTCOMES

Upon successful completion of this course, you will be able to reliably demonstrate the following Course Learning Outcomes which will be taught and evaluated:

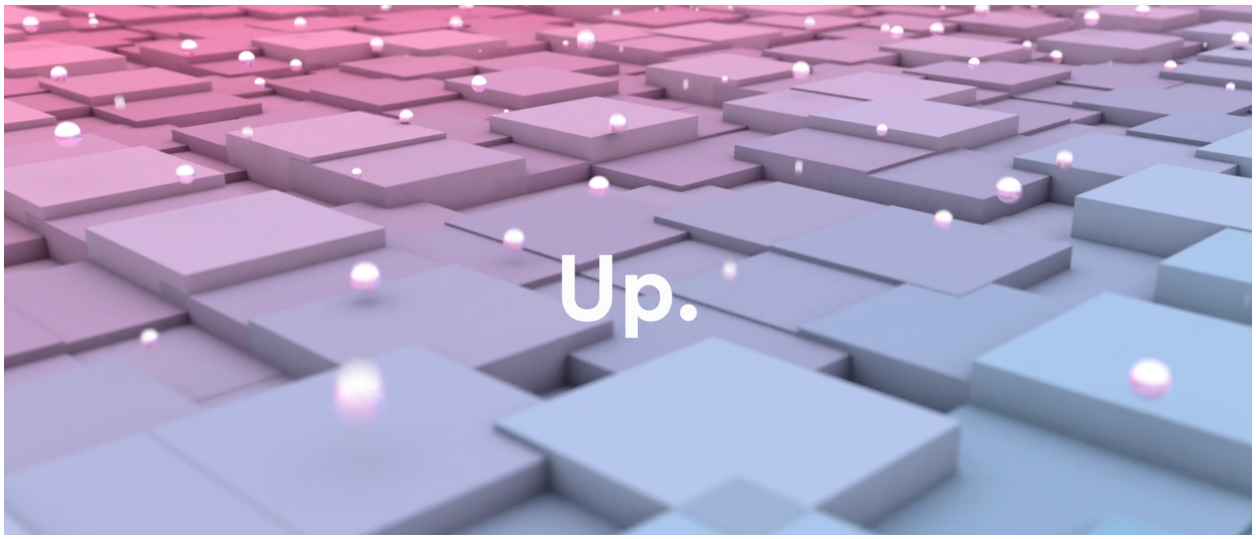
1.) Best practices & tools to design and animate engaging video content

2.) Proficiently Texture, Light, and Render 3D Models to integrate into final Motion Design projects.

GRADE BREAKDOWNS

Homework - 30%
Assignment 1 - 25%
Mid-Term - 15%
FIP - 30%

Prepared by John Bennett



COURSE BREAKDOWN

WEEK 1-**Orientation**

WEEK 2

Course Introduction and Breakdown

• Cinema 4D Interface introduction
• Snowman scene modeling, texturing and rendering
• Assign HW #1 - Snowglobe Scene (10% of final mark)

WEEK 3

Modeling with Generators

• Lighting, Global Illumination and Ambient Occlusion Overview
• Introduction Final Integrated Project (30% of final mark)
• HW #1 - Snowglobe Scene due -January 15, 2023, 5:00 PM EST.

WEEK 4

Sub-division (Sub-D) Modeling
Intro to the Volume Builder

WEEK 5

Materials and Lighting
• Assign HW #2 - Room (10% of final mark)

WEEK 6

Camera Animation

• Introduction Assignment #1 (25% of final mark)

WEEK 7

Dynamics

• Assign HW #3 - Dynamics (10% of final mark)

• Midterm for FIP (15% of final mark) due Week 7 – February 12, 2023, 5:00 PM

WEEK 8

Introduction to After Effects

• Adding content, basic animation, structuring, rendering and saving videos

• HW #2 - Room due - Week 8 – February 26, 2023, 5:00 PM EST.

WEEK 9

Timeline Option, Keyframing and Nesting Comps

• Keyframing options – Easy Ease – Ease in & Out, working with the Graph Editor

• HW #3 - Dynamics - due Week 9 – March 5, 2023, 5:00 PM EST

Week 10

Track Mattes and Masks

• Track matte options

• Creating masks and moving masks

• Combining masks and track mattes

Week 11

Compositing / Colour Grading / Colour Effects / Still Effects

Week 12

Open Lab

Week 13

• Assignment #1 - due- Week 13 – April 2, 2023, 5:00 PM EST.

Week 14
Open Lab

ADDITIONAL LEARNING

LEARNING

Become a Motion Graphics Artist

Take graphic design to the next level using motion. Learn how to use visual effects, animation, and cinematic techniques to bring designs to life.

Cinema 4D Weekly

Looking to add 3D to your professional skill set? In this weekly series, join EJ Hassenfratz as he shares tips, techniques, and strategies for boosting your 3D skills with Cinema 4D, the essential tool for motion graphics artists and designers.

LinkedIn Learning is available for free through your Fanshawe email.

Site of Interest

Videocopilot.net
Greyscalegorilla.com
Motionographer.com

FREE AND ROYALTY-FREE (STOCK)

Resource: https://topimagesites.com/royalty-free/

This course, unless otherwise noted, does not permit the use of free or royalty-free 3D models or After Effect templates of any kind. No exceptions.

What does royalty-free mean?

An image/video/3D model that is available on a stock website is governed by a license.

This license dictates how you can and cannot use this image/video/3D model. For instance, a license may enable you to use the image on your website to sell a product, but not for anything that has to do with a political campaign.

A royalty-free license is not free. You will have to make a one-time upfront payment for it. But you only have to make this payment once. Regardless of how you use the image/video/3D model in the future, you will not have to pay any further payments (or royalties), hence the term 'royalty-free'.
The royalty-free license gives you the right to use the image/video/3D model essentially forever.

In other words: In exchange for a one-time payment, you obtain the right to use the image/video/3D model forever and however, you want to use it within the license specifications, without additional fees or interruption from the copyright owner, as long as your use of the product conforms with the license agreement.

Free images/videos/3D models from a free internet site still have licenses governing the image/video/3D models. You just don't have to pay for them. But you do have to review the license and make sure you are using the material within the license guidelines. **Google Search does not necessarily provide results to images/videos/3D models that are free or royalty-free.**

HOMEWORK BRIEFS

HW #1 - SNOWGLOBE SCENE

You have been given the task to follow and complete the Snowglobe 3D scene in Cinema 4D. Students will recreate the scene as closely as possible in Cinema 4D using the provided videos.

All objects in the Object Manager need to be named. All materials in the Material Manager need to be renamed. Also, provide proper submission folder structure.

5 different camera angle renders are required. These 5 renders will be in .JPG format.

All 3D elements will be created in Cinema 4D – no exceptions.

TECHNICAL REQUIREMENTS

Render Settings:

Size: 1920 width x 1080 height
Film Aspect ratio: 16:9
Pixel Aspect ratio: Square
Frame rate: 30 fps
Frame Range: From 0 To 4
Fields: none
Format: .jpg

DELIVERABLES

- Cinema 4D file and tex folder
- 5 different angled images rendered in .jpg format

GRADING

Following Instructions - 5 marks
Naming Objects - 5 marks
Materials Applied & Named - 10 marks
3D Modeling - 20 marks
Overall Design - 20 marks
Total - 60 marks

SUBMISSION REQUIREMENTS & DUE DATE

Submit your zip folder with proper naming conventions (Lastname_Firstname_Assignmentname.zip) into HW #1 FOL Submission Dropbox (10% of final grade)

Rar files will not be accepted.

Due Week 3 – January 15, 2023, 5:00 PM EST.

HW #2 - ROOM

You have been given the task to complete the room 3D scene in Cinema 4D with completed lighting and textures. Using the provided videos and pictures to follow, students will recreate the scene as closely as possible in Cinema 4D. Then render 5 different interesting camera angles in .JPG format.

All objects in the Object Manager need to be named. All materials in the Material Manager need to be renamed to something meaningful.

TECHNICAL REQUIREMENTS

Render Settings

Size: 1920 pixels width x 1080 pixels height
Film Aspect ratio: 16:9
Pixel Aspect ratio: Square
Frame rate: 30 fps
Frame Range: From 0 To 4
Fields: none
Format: .jpg
Global Illumination: Yes
Ambient Occlusion: Yes

DELIVERABLES

- Cinema 4D file and tex folder
- 5 different angled images rendered in .jpg format

GRADING

Technical Requirements Followed: 5 marks
Naming Objects & Materials - 5 marks
Texturing: 20 marks
Lighting: 20 marks
Overall Design: 20
Total Marks = 70

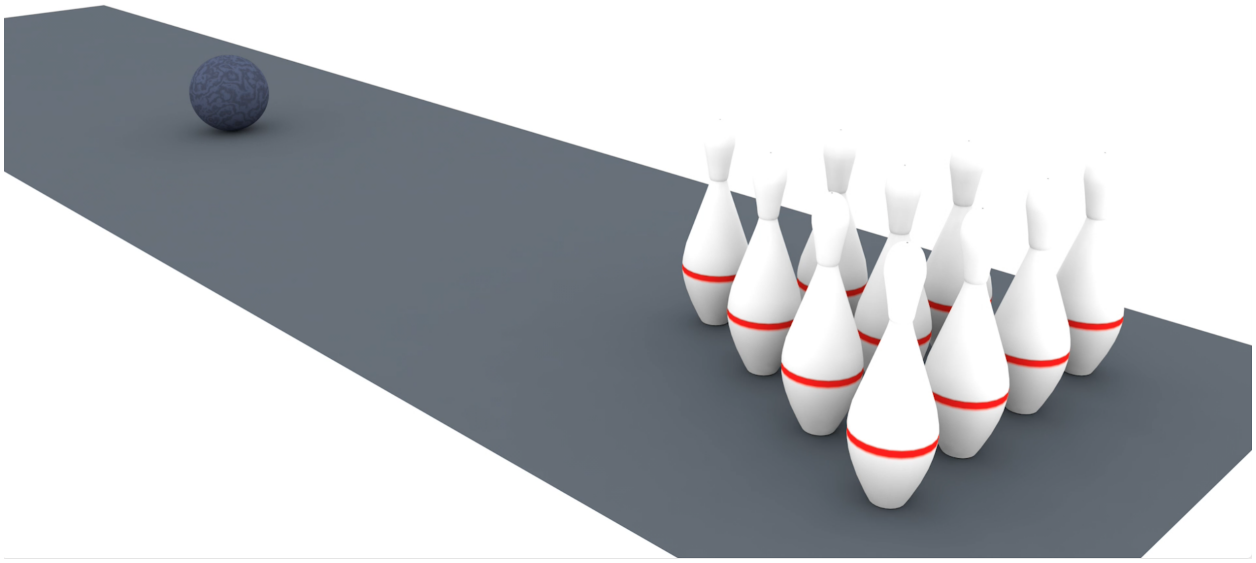
SUBMISSION REQUIREMENTS & DUE DATE

Submit your zip folder with proper naming conventions (Lastname_Firstname_Assignmentname.zip) into HW #2 FOL Submission Dropbox (10% of final grade)

Rar files will not be accepted.

Due Week 5 – January 29, 2023, 5:00 PM EST.

HW #3 - DYNAMICS



You have been given the task to complete 3 scenes using dynamics in Cinema 4D. Each scene needs to be rendered in a .mp4 format.

Using the 'beer_pong.c4d' file students will dynamically bounce the ball into a cup and make it stay inside the cup. Use the provided video for reference. There **will not be any keyframes** used in the process to bounce the ball into the cup. Students will use their knowledge of Cinema 4D's dynamic capabilities to make the scene work properly.

Using the 'bowling_alley.c4d' students will dynamically throw the ball down the alley and knock the pins. Use the provided video for reference. There **will not be any keyframes** used in the process to bounce the ball into the cup. Students will use their knowledge of Cinema 4D's dynamic capabilities to make the scene work properly.

Using the 'obstacle_course' video as your guide. Students will use Cinema 4D dynamics to recreate the video. There **will not be any keyframes** used in the process to create the 'obstacle course' video. Students will use their knowledge of Cinema 4D's dynamic capabilities to make the scene work properly.

All objects in the Object Manager and all materials in the Material Manager need to be named.

TECHNICAL REQUIREMENTS

Render Settings

Size: 1920 pixels width x 1080 pixels height
Film Aspect ratio: 16:9
Pixel Aspect ratio: Square
Frame rate: 30 fps
Frame Range: However long it takes to get the dynamic simulation to work
Fields: none
Video Format: .mp4
Compression: h.264

DELIVERABLES

- Cinema 4D files and tex folder
- 3 rendered videos for each dynamic scene in .mp4 format

GRADING SCHEME

Technical requirements followed: 5 marks
Object Naming: 5 marks
Beer Pong Dynamics: 20 marks
Bowling Alley Dynamics: 20 marks
Obstacle Course Dynamics: 50 marks
Total Marks = 100

SUBMISSION REQUIREMENTS & DUE DATE

Submit your zip folder with proper naming conventions (Lastname_Firstname_Assignmentname.zip) in to HW #3 FOL Submission Dropbox (10% of final grade)

Rar files will not be accepted.
Due Week 9 – March 5, 2023, 5:00 PM EST.

ASSIGNMENT BRIEFS

ASSIGNMENT #1

Students are required to do their own individual research to complete the project. Using techniques shown in class as well as researching new modelling/texturing techniques students will design and create a high-end, ultra-modern Hyatt Hotel & Resorts bedroom scene in Cinema 4D.

The overall placement of furniture and flow of the room is important to a bedroom layout. All furnishings must be modelled with polygon efficiency in mind. All elements must be the appropriate scale for the size of the room.

All 3D models in the room must be created by students in Cinema 4D – no exceptions. Free textures from free or royalty-free stock resources on the internet are permitted – textures found with a Google search are not considered free or royalty-free stock.

Do not design or 3D model in a bubble – gather inspirational bedroom and furniture references. You are encouraged to explore and use tutorials*. Using a tutorial is fine, but make it 'your own' in regard to your scene. A straight regurgitation of the tutorial is not permitted. **You are not permitted to download models, all models must be your own original creation.**

Render out 5 different interesting camera angles in .JPG format. As well as render out a 5 to 10-second fly-through video of the room.

Do your research, build, be creative, have fun and make it your own.

ASSIGNMENT REQUIREMENTS

Your Hyatt bedroom design must include the following furnishings:

- King-size bed with headboard
- Pillows
- Night side bed tables
- Bedside lights
- Closet
- Dresser
- Couch
- Reading table with chair
- Room Lights
- Picture Frames
- Wall Mounted TV
- The room must also include a door and at least 1 scenic window

TECHNICAL REQUIREMENTS

Render Settings

Size: 1920 pixels width x 1080 pixels height
Film Aspect ratio: 16:9
Pixel Aspect ratio: Square
Frame rate: 30 fps
Fields: none

Image Format: .jpg
Video Format: .mp4
Video Duration: 5 to 15 seconds in length
Video Compression: h.264

DELIVERABLES

- Cinema 4D file and tex folder
- 5 different angled images rendered in .jpg format
- 1 final fly-through video in .mp4 format
- Links to tutorials used* (pdf format)
- Inspirational images folder (with images that inspired some of your design)

GRADING SCHEME

Following Instructions: 5 marks
Technical requirements followed: 10 marks
Objects and Material Naming: 10 marks
3D Lighting Setup: 20 marks
All 3D Models Created with Materials - 20 marks
Overall Design of Room: 35 marks
Total mark: 100 marks

SUBMISSION REQUIREMENTS & DUE DATE

Submit your zip file with proper naming conventions (Lastname_Firstname_Assignmentname.zip) into Assignment #1 FOL Submission Dropbox (25% of final grade)

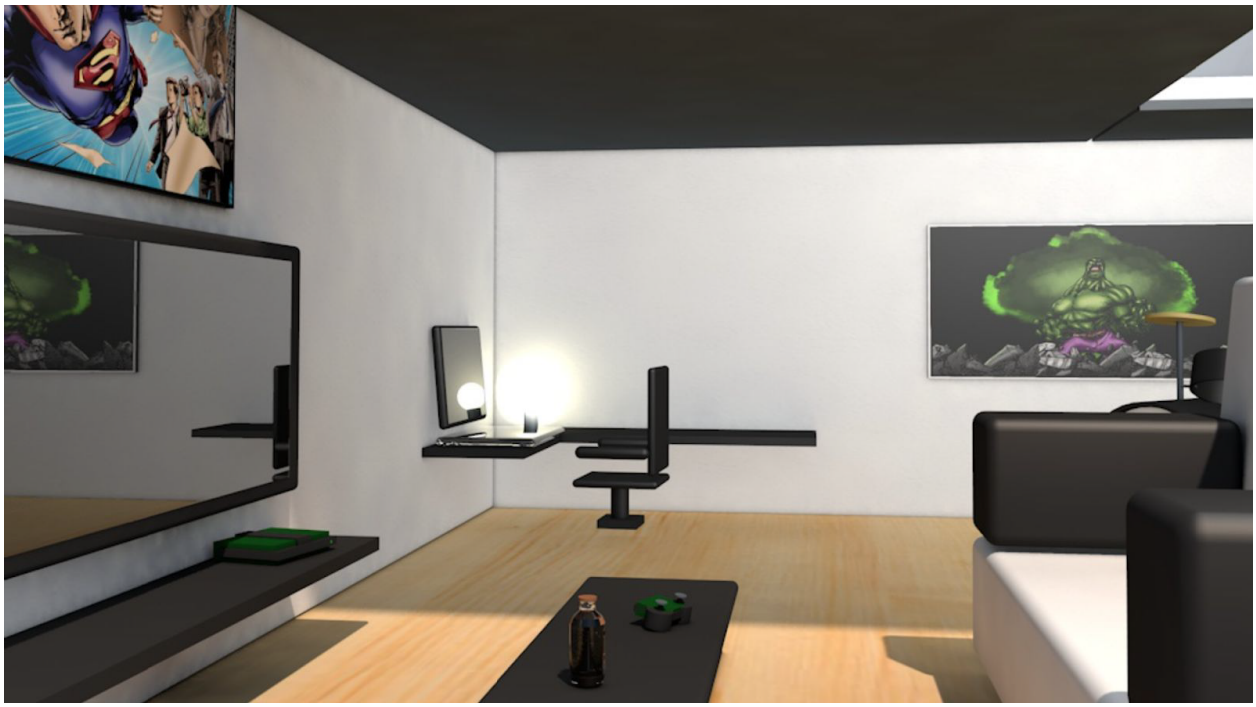
Rar files will not be accepted.

Due Week 13 – April 2, 2023, 5:00 PM EST.

GRADING REFERENCE

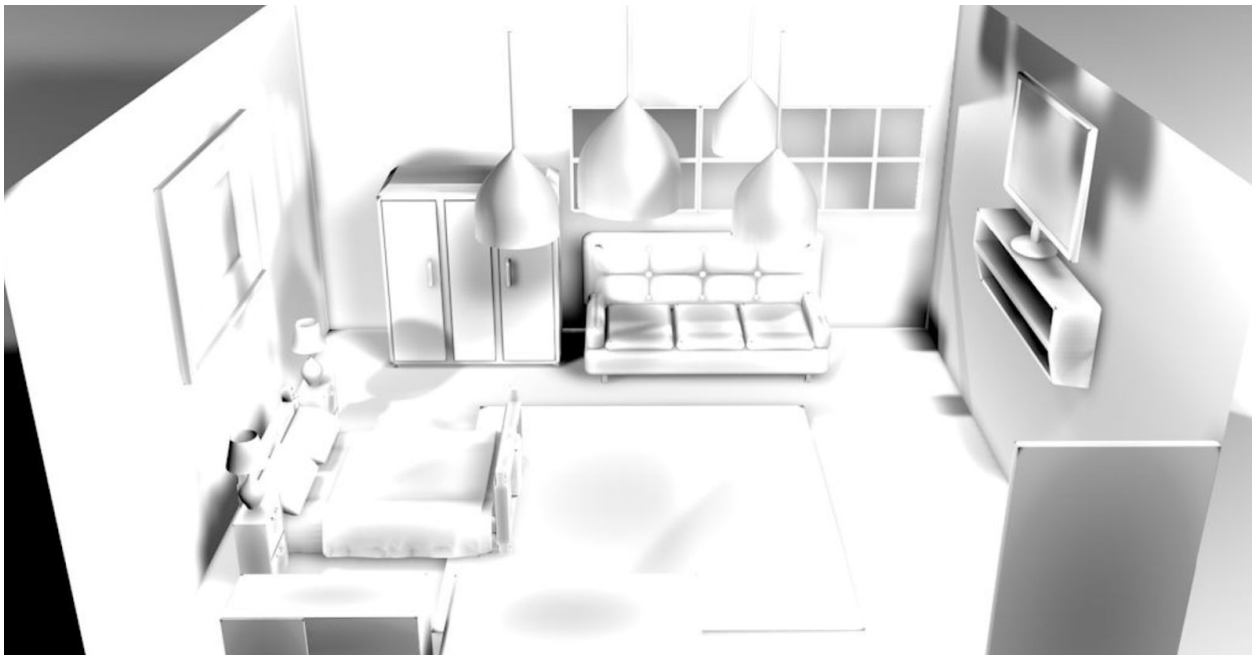
Grade = A (80% to 100%)

Grade = B (70% to 79%)



Grade = C (60% to 69%)

Grade = F to D (0% to 59%



MIDTERM for FIP

Using methods taught in class, each student or group is required to create 5 promotional product pictures to help set the tone for the brand design. Ideally, these promo pictures will be exceptionally creative and will adhere to the brand specifications you have created for the product. The promo images can have text on them. These images can look like ads you would find in a magazine or on billboards. These images you create are going to be assets that you can use throughout the marketing campaign you are creating.

The bottle product for these pictures needs to be created using Cinema 4D. You are permitted to use multiple stock images to composite graphic embellishments to the background.

Use Adobe Photoshop and/or Adobe Illustrator to make any additional editorial enhancements to make the promo pictures really shine.

Promotional Picture Reference Examples:
https://drive.google.com/drive/folders/1n3rTFQX9nzoH83SvoNUwfoAr4DsvJctL?usp=sharing

TECHNICAL REQUIREMENTS

Size: 8.5 inches wide x 11 inches high
Aspect ratio: portrait or landscape
Colour mode: cmyk
Resolution: 300 ppi/dpi
Format: .jpg

DELIVERABLES

- Cinema 4D file(s) and tex folder
- 5 Promotional Product Pictures in JPG format
- Inspiration folder/research with sample work that inspired their creation

GRADING SCHEME

Inspiration/Research: 5 marks
Technical requirements followed: 15 marks
3D Bottle Design and materials: 30
Overall Design: 50 marks
Total mark: 100 marks

SUBMISSION REQUIREMENTS & DUE DATE

Submit your zip file with proper naming conventions (Lastname_Firstname_Assignmentname.zip) to the FOL's Submissions Dropbox. Rar files will not be accepted. (15% of final grade)

Due Week 6 – February 5, 2023, 5:00 PM EST.

FIP - FINAL INTEGRATED PROJECT

MMED-1057 MOTION DESIGN 1 - REQUIREMENTS

Building upon techniques taught in class throughout the semester, students will submit a final infomercial video to promote their new brand.

The final infomercial video needs to **describe/show key elements** of the new brand, making it as impactful as possible to the viewer. Use **text call-outs** to unique portions of the brand as the video plays along to keep the viewer engaged with the product. For example, a rotating bottle will not be good enough - this video needs to excite the viewer and keep their attention.

Explore different camera angles in different scenes for the video. Then cut the scenes together to tell a visual story. All 3D models and textures need to be created by you. All final video editing needs to be completed in After Effects. The final animation must be 15 seconds in length. **No exceptions**.

ASSIGNMENT REQUIREMENTS

- All 3D elements must be created in Cinema 4D – no exceptions.
- After Effects will be used to cut together video sequences in an interesting manner and to “polish” the final infomercial video
- There must be a final rendered video in .mp4 format or a grade of 0 will be assigned for the submission

TECHNICAL REQUIREMENTS

Aspect ratio: 16:9
Size: 1920 pixels wide x 1080 pixels high
Duration: 15 seconds
Frame rate: 30 fps
Music: stock or original score
Compression: h.264
Video Format: .mp4

DELIVERABLES

- A final infomercial video rendered out in .mp4 format
- Cinema 4D file(s) and tex folder
- After Effects file (I do not need the assets)

GRADING SCHEME*

Technical requirements followed: 5 marks
Colour Grading: 10 marks
Editing and Timing to Music: 25 marks
Overall Design of Infomercial: 60 marks
Total mark: 100 marks

* This is an averaged grade across all student courses.

SUBMISSION REQUIREMENTS & DUE DATE
Submit your zip file with proper naming conventions (Lastname_Firstname_Assignmentname.zip) to the Final Integrated Project FOL Submission Dropbox. (30% of final grade)

Due Week 12
Regular Dropbox:
Week 14 (Monday, April 11, 2023) @ 5 pm EST (Eastern Time Zone) UTC - 5/GMT

**Late Dropbox:
Week 14 (Monday, 11, 2023) @ 7 pm EST (Eastern Time Zone) UTC - 5/GMT
(30% grade reduction for all FIP's submitted to this dropbox):

ADDITIONAL INFORMATION

Plagiarism (e.g., failure to acknowledge sources used, submitting another student's work under your name, or producing work for another student to submit) is a serious academic offence that shall result in appropriate penalties, to be determined at the discretion of the course professor in consultation with the chairperson of the School of Digital and Performing Arts. The penalties shall range from failure of an assignment to a possible failure of the course. Students shall not make the assumption that any provision will be made by the professor to permit the student to rewrite or redo failed assignments.

Missed tests/exams will not be rescheduled without some valid evidence of some important event over which the student has no control (e.g., Court appearance, death in the family). Missed tests or exams, therefore, can receive a zero. The students are advised to notify the professor prior to missing the test.

Students are expected to hand in all assignments to the course instructor on the due date, and all assignments must be submitted in the format specified by the instructor (e.g., on FOL Submission Dropbox, in printed form, on a specific lab computer, etc.); assignments will not be accepted in any format other than that specified.

Late assignments will not be accepted, nor will make-up tests or assignments be

permitted, without some valid evidence of some important event over which the student has no control (e.g., documented illness, death in the family). Missed tests or assignments, therefore, will receive a mark of zero. Late assignments and make-up tests will only be permitted following the submission of adequate documentation acceptable to the instructor (e.g., a doctor's note). Students are advised to notify the instructor prior to missing an assignment due date or a scheduled test.

Immediately upon return from an illness/absence in which a test or assignment has been missed, the student is responsible for contacting the course instructor to discuss the problem. The instructor will make arrangements for any student deemed eligible. The alternative test/assignment will be of equal value to the one missed with no grade penalty. The timeline and due dates will be determined by the course instructor.

This course may be revised by the professor with suitable notification to the students. Students are responsible for making arrangements to pick up missed handouts, assignments and course announcements from classmates.

Late Policy

Level 1: 1 warning, and after that 30% off late assignments. (24hrs from due date/time)
Level 2: 30% off late assignments (12hrs from due date/time)
Level 3: 30% off late assignments (12hrs from due date/time)
Level 4: 30% off late assignments (12hrs from due date/time)

It changes after level 1
Students must reach out to Prof for a late submission.
After that time period either 12hrs or 24hrs, it's a 0, unless they have reached out to you prior with a valid reason.