

Value Added Course 2019-20



Photography & Image Processsing

**Offered
to III BSc
Students**

Time:36 hours

Credit:2

Certification Course

Course Cordinator:

Dr.Seema R.

seema@

cmscollege.ac.in



Highlights

- Basics of Photography
- Types of Cameras
- Analyze examples of photographic art
- Advanced methods and techniques in photographic art
- Image processing techniques

Course	Details		
Code			
Title	Photography and Image processing		
Degree	B.Sc.		
Branch(s)	Physics		
Year/Semester	III/6		
Type	Value added Course		
Credits	2	Total hours	36

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level	PSO No.
1	Discuss the basics of photography	U	1
2	Discuss the various types of cameras	U	1
3	Analyze examples of photographic art	An	2
4	Demonstrate an understanding of advanced techniques and methods specific to the practice of photography	Ap	3
5	Create the techniques of image processing	C	1

PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create.

Module	Course Description	Hrs	CO.No .
1.1	Introduction to Photography	1	1
1.2	Camera, Choosing A Camera, DSLR Camera	1	2
1.3	Lenses: Type of Lenses, Focusing, Focal Length,	1	2
1.4	Aperture, Depth of Field, Shutter Speeds	1	2
1.5	Image Sensor, Full Frame, APS Sensors, ISO	1	2
1.6	Working With Tripod And Other Supporting Accessories.	1	2
1.7	Practical: <ul style="list-style-type: none"> Identifying different types of lenses Hands on experience on handling a DSLR camera, its buttons and control Hands on experience on working with tripod and other supporting Accessories 	4	3,4
2.1	Light- What is Light?	1	1
2.2	Lighting Aesthetics, Color Temperature, Direction	1	1
2.3	Light Sources: Natural Light, Artificial Light-Hard and Soft Light	1	1
2.4	Flash Diffusers, Gels And Filters.	1	1,3

2.5	Practical: <ul style="list-style-type: none"> Understanding the Lighting Aesthetics Identifying different types of light sources, Flash Diffusers, Gels and Filters 	5	3, 4
3.1	Photoshop Introduction	1	5
3.2	Document Window, Working with Selections	1	5
3.3	Tools and Transforming a Selection	1	5
3.4	Setting the Current Foreground and Background Colors through Pen tool	1	5
3.5	Working with color mode, Saving images	1	5
3.6	Layer, Layer Style and Filter Effects	1	5
3.7	Photographic Projects: Product Photography (Advertisement Photography)	1	3,4,5
3.8	Practical: <ul style="list-style-type: none"> Create different type Documents. Photo Merge Change the background of foreground Photo retouching and cleaning Tracing image Using Logical color for digital painting and all other assignments BG Making for Movie, Poster etc. 	10	5

Total Hours: Theory- 17 hrs; Practical -19 hrs

Evaluation method:

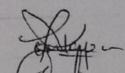
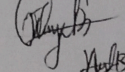
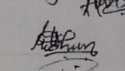
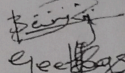
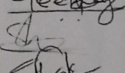
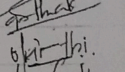
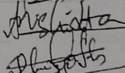
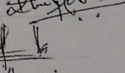
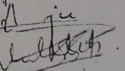
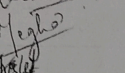
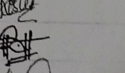
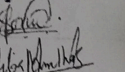
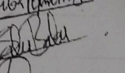
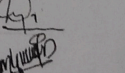
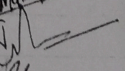
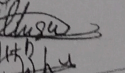
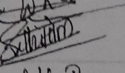
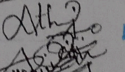
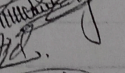
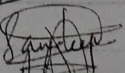
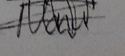
- Objective method of evaluation is employed
- Practical skills on photography
- Practical skills on image processing

Text Books for Reference

1. Photography, the art of composition by Bert Krages
2. Photographic lighting Simplified by Susan McCartney
3. Creative composition by Harold Davis
4. Focal Encyclopedia of Photography by Focal Press Team
5. Optics by N. Subramanian Brijlal, M N Avadhanulu
6. Photoshop CS6 by Prof. Satish Jain, M. Geetha

Day 1.

Session 1.

Sl No:	Name	Signature
1.	Tom Kappan	
2	Vinayak J	
3	Athul K.B	
4	Midhun G. Krishnan	
5	BRAHMADETH REJI	
6	Geethu G.S	
7	Shilpa John	
8	Sangeetha K	
9	JYOTHI K. PRAKASH	
10	Abishikta Maria Susheel	
11	Ribeye Ann John	
12	Amritha Ajmal	
13	Anju Sadanandan	
14	Ardra Rajesh	
15	Megha Philip	
16	Jeslet Thomas	
17	Roshini Mary John	
18	Bonu Mariam Remy	
19	Miba Mumthaz C. Rasheed	
20	Salu Babu	
21	Dinfa Mary Biji	
22	Ajil Mathew George	
23	NAVEEN S KUMAR	
24	ABHISHEK K H	
25	SOBIN BABY SABU	
26	Sruthimol K.U	
27	Athira P	
28	Aswathathi Raj	
29	VYSAKHI MANOHAR	
30	Pandey Mohan	
31	Manu Madhu	



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Sl. No

32

Alshag P. Shibu

33

Vinayak J

Name

Signature

Alshag P. Shibu
Vinayak J

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Signature

Geetha

Prathap

Arundathi

Srujan

Sobin

Abhishek

Naveen

Ajil

Silpa

Dinesh

Arjun

Manu

Arsha

Madhu

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Sl No

Name

1. Alhira P
2. Geetha G S
3. Sangeetha K
4. Jyothy J. Prakash
5. ARUNDATHI RAO
6. Srujan M. K. U
7. Sobin Baby Babu
8. Abhishek K H
9. Naveen S Kumar
10. Ajil Hameed George
11. Silpa John
12. Dinesh Mary Babu
13. Arjun Sadanandan
14. Andra Rajan
15. Manu Madan
16. Arsha P. S. Libu
17. Madhu P. Libu
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Name

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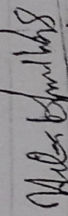
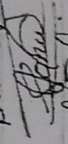

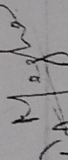

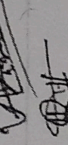
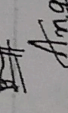
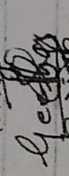
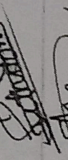
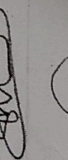
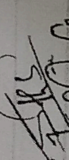
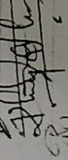
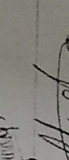
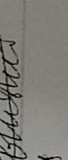
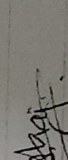
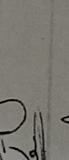
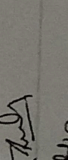
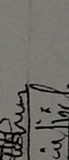
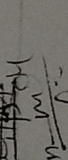
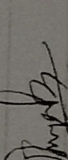
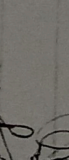

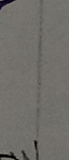
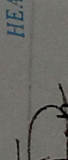
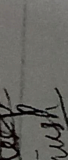
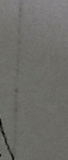
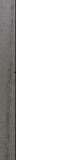

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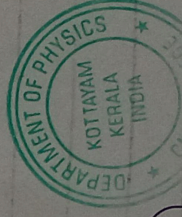


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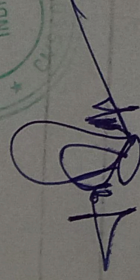
Session :

9.00 am - 11 PM

S/No	Name	Signature
1)	Hiba Munrothas C. Rasheed	
2)	Sonu Mariam Renny	
3)	Salu Babu	
4)	Meera Philip	
5)	NAVEEN S. KUMAR	
6)	Attira Venu	
7)	Roshini Maxy John	
8)	Angel Sebastian	
9)	Geethu-G.S	
10)	Seethimol K.V	
11)	Shilpa John	
12)	Athiza P	
13)	Sangeetha K	
14)	Rejya An Phil	
15)	Ajil Mathew George	
16)	Abhishek K H	
17)	Angatha Ajmal	
18)	Athul K.S	
19)	Toni Kappen	
20)	Akshay P. Shibu	
21)	Midhun G. Krishnan	
22)	Noel P.J	
23)	Ebin Mathai	
24)	Vinayak J	
25)	Viprith. Manohar.	
26)	Manu Madhu	
27)	Jisela Thomas	
28)	Dinys Mary Biji	
29)	Sandeep Mohan	
30)	Dhanush V.S	



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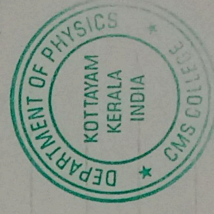
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Vijaya
Sobin Baby
Naveen & Kumar
Abhishek K H
Aishwarya Maria Sushree

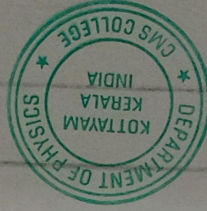
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Sl. No. Name Signature

- 1) Bibiye Ann John
- 2) Dehin Mary John
- 3) Alchiktha Maria Sushel
- 4) Adma Rajesh
- 5) Anju Sadanandan
- 6) Joythy. K. Pralash
- 7) Anundathi - Raj
- 8) Sangeetha K
- 9) Greetha N
- 10) Sotini Baby Sabu
- 11) Sandeep Mohan
- 12) Athul. K.S
- 13) NAVETH S. KUMAR
- 14) Alu Babu
- 15) ADIL MATHEN GORGE
- 16) ABHISHEK K.H
- 17) SHILNA JIJIN
- 18) Athira.D
- 19) Suni Marian Renny
- 20) Dhanush.V.S
- 21) Hiba Nandha
- 22) Tom Kapten
- 23) Jisiel Thomas
- 24) Mayla Philip
- 25) Sulphimol. K.U
- 26) Vysakh. Manohar
- 27) Nbed P.S
- 28) Alana Plackten
- 29) Michun. G. Krishna
- 30) Beekunajith Riji
- 31) Anurag Agal



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Name

Mrs. J. S. Hays

Buchmeyer's Fly

Verwayde.

U.S. Yarnum

Signature

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Department of Physics CMS College Kottayam

Report Of Value Added Course

Photography and Image Processing

Introduction

The Department of Physics, CMS College Kottayam conducted a Value added Course on "Photography and Image Processing " from 14th November 2019 to 21st November 2019.

Photography is the art and science of creating still or moving images using a camera. Image processing is the manipulation of digital images using a computer. This can include adjusting the color, brightness, contrast, or other properties of an image. It can also include more advanced techniques such as object recognition, image compression, and image restoration. Both photography and image processing have many practical applications, including in fields such as journalism, advertising, medicine, and law enforcement.

Objective

The objective of photography is to capture and preserve a visual representation of a scene or subject. This can be done for artistic, documentary, or commercial purposes. Photographers use various techniques such as composition, lighting, and exposure to create visually pleasing and meaningful images.

The objective of image processing is to enhance or extract useful information from digital images. This can include improving the image's quality, removing noise or artifacts, and identifying or extracting specific features or objects from the

image. Image processing techniques are used in a wide range of applications such as medical imaging, satellite imagery and security surveillance.

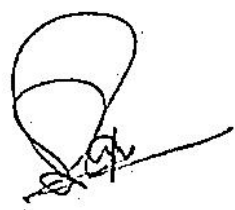
Method

The course was imparted through lectures (18 hours) and practical lab sessions (18 hours). 42 students from VIth Semester BSc Physics have attended the course. The evaluation of the theory was done using multiple choice questions tests containing 30 questions. In the practical session, the students took photos using a DSLR Camera. The students were also taught the techniques to edit the images using Adobe photoshop. For the evaluation of the practical skills, the students submitted a project of a product photoshoot.

Result

The course provided an opportunity for students to understand the foundations of Photography and Image Processing and its practical skills. Learning Photography and image processing has provided them skills in visual storytelling, composition, and image manipulation, which can be beneficial in various fields like journalism, advertising, graphic design, medicine, engineering and computer science. Additionally it is also useful in the field of Artificial Intelligence and machine learning.

Course Coordinator: Dr. Seema R, Assistant Professor, Department of Physics, CMS College, Kottayam



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