

## Semester Lecture Plan

**Name of the college:** Government College of Arts, Science & Commerce Khandola, Marcela – Goa.

**Name of Faculty:** Dr. Jason Joseph

**Subject:** Physics: SECTION 1: PHOTOGRAPHY

**Paper code:** PYS108

**Program/Course:** First Year B.Sc

**Division:** A

**Academic year:** 2022-23

**Semester:** III

**Total Lectures:** 45

### Course Objectives:

- Familiarise the students with concept, content and instrument material (camera, lenses and lighting equipments)
- Introduce practical usages of the instruments
- Create capability to generate digital photographic content
- Provide hands on practical experience via structured photoshoots
- Generate artistic talent in scientific way.

### Course Learning Outcome:

- CO1. Explain the fundamental concepts, theoretical formulations and practical application pertaining to the topics listed in syllabus.
- CO2. Evaluate and Calculate the physical parameters pertain to a professional photoshoot
- CO3. Create digital photographic content by optimal utilization of theoretical knowledge.
- CO4. Draw the geometries of practical photoshoot problems
- CO5. Deduce the common tricks and techniques practiced in a professional photoshoot
- CO6. Evaluate the merits and demerits of photoshoot locations and environments
- CO7. Transform into a professional photographer

Month	Lectures From:                      To:	No. of lectures allotted	Topic, Subtopic to be covered	-	ICT Tools	Reference books
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August	08/08/2022	29/08/2022	10	<p><u>Topic 1</u></p> <p>Introduction to photography</p> <p><u>Topic 2</u></p> <p>Camera Basics</p> <p><u>Topic 3</u></p> <p>DSLR Camera</p> <p><u>Topic 4</u></p> <p>Exposure</p>	<p>Black board, Power point presentation, camera, lenses and lighting equipments</p>	<ol style="list-style-type: none"> <li>1.Scott Kelby's Digital Photography Boxed Set, Volumes 1, 2, and 3 1st Edition Author: Scott Kelby, Publisher: Peachpit Press ©2007, 2009</li> <li>2. Understanding Exposure, 3rd Edition: How to Shoot Great Photographs with Any Camera Author: Bryan Peterson, Publisher: Random House India Edition: 3rd Edition, 2010</li> <li>3. The Photographer's Eye: Composition and Design for Better Digital Photos 1st Edition Author: Michael Freeman, Publisher: Focal Press; 1st edition (May 23, 2007);</li> <li>4. Extraordinary Everyday Photography: Awaken Your Vision to Create Stunning Images Wherever You Are Author: Brenda Tharp, Publisher Amphoto books 2012</li> <li>5. Better Photo Basics: The Absolute Beginner's Guide to Taking Photos Like a Pro 1st Edition Author: Jim Miotke, Publisher: Amphoto Books 2010</li> <li>6. The Art of Photography: An Approach to Personal Expression Author: Bruce Barnbaum, Publisher: Photographic Arts Editions in cooperation with Rocky Nook Inc 2010</li> <li>7. David Busch's Mastering Digital SLR Photography (David Busch's</li> </ol>
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							Digital Photography Guides) 3rd Edition Author: David D. Busch, Publisher: course technology PTR 2012 8. Basic 35mm Photo Guide: For Beginning Photographers 5th Edition Author: Craig Alesse, Publisher: Amherat Media Inc. 2001 9. How to Photograph Absolutely Everything: Successful Pictures From Your Digital Camera Author: Tom Ang, Publisher: DK; Reprint edition 2009 10. 50 Photo Projects - Ideas to Kickstart Your Photography Author: Lee Frost, Publisher: David & Charles; 2009
<b>Month</b>	<b>Lectures From:</b>	<b>To:</b>	<b>No. of lectures allotted</b>	<b>Topic, Subtopic to be covered</b>	<b>-</b>	<b>ICT Tools</b>	<b>Reference books</b>

September	06/09/2022	30/09/2022	19	<p><u>Topic 5.</u> Aperture &amp; Shutter Speeds</p> <p><u>6 Topic.</u> ISO, Exposure compensation, Concept of high- and low key photographs</p> <p><u>Topic 7.</u> Light Meter, TTL concept</p> <p><u>Topic 8.</u> Depth of Field [3]</p> <p><u>Topic 9.</u> White balance and colour compensation</p>	Black board, Power point presentation, camera, lenses and lighting equipments	<p>1.Scott Kelby's Digital Photography Boxed Set, Volumes 1, 2, and 3 1st Edition Author: Scott Kelby, Publisher: Peachpit Press ©2007, 2009</p> <p>2. Understanding Exposure, 3rd Edition: How to Shoot Great Photographs with Any Camera Author: Bryan Peterson, Publisher: Random House India Edition: 3rd Edition, 2010</p> <p>3. The Photographer's Eye: Composition and Design for Better Digital Photos 1st Edition Author: Michael Freeman, Publisher: Focal Press; 1st edition (May 23, 2007);</p> <p>4. Extraordinary Everyday Photography: Awaken Your Vision to Create Stunning Images Wherever You Are Author: Brenda Tharp, Publisher Amphoto books 2012</p>
October	01 b/10/2022	31/10/2022	18	<p><u>Topic 10</u> Lenses Importance of lens in a camera, focal length of camera lenses and its effects on photographs. Types of lenses. (Prime lens, zoom lens &amp; tilt lens) Categorization of lenses (kit lenses, micro, macro, wide angle &amp; telephoto lenses).</p> <p><u>Topic 11.</u> Lighting Natural lighting, artificial lighting. speed lights, studio strobes, light modifiers, colour gels.</p>	Black board, Power point presentation, camera, lenses and lighting equipments	

November	1/11/2022	10/11/2022	22	<p><u>Topic 12.</u> Effect of lighting on photographs</p> <p>Fill light, back light, Rembrandt lighting; butterfly lighting, golden hour and sun set photography</p> <p><u>Topic 13.</u> Flash Photography TTL, high speed sink, Composition tips and Shooting at Night</p> <p><u>Topic 14.</u> Filters, Tripod, &amp; Camera Accessories</p>	Black board, Power point presentation, camera, lenses and lighting equipments
December	05/12/2022	19/12/2022	07	<p><u>Topic 15.</u> Introduction to a photo editing software (adobe light room)</p>	Black board, Power point presentation, camera, lenses and lighting equipments

Topic No.	Subtopics
1	Definition of photography, Physics of photography, History and developments in photography, Types of photography, Digital photography.
2	Types of cameras, introduction to common brands of cameras, Camera Controls, basic camera settings, Basic camera operations.
3	Detailed operational procedure of a DSLR Camera and shooting modes
4	Exposure
5	Aperture & Shutter Speeds
6	ISO, Exposure compensation, Concept of high- and low key photographs
7	Light Meter, TTL concept

8	Depth of Field
9	White balance and colour compensation
10	Importance of lens in a camera, focal length of camera lenses and its effects on photographs. Types of lenses. (Prime lens, zoom lens & tilt lens) Categorization of lenses (kit lenses, micro, macro, wide angle & telephoto lenses).
11	Natural lighting, artificial lighting. speed lights, studio strobes, light modifiers, colour gels.
12	Fill light, back light, Rembrandt lighting; butterfly lighting, golden hour and sun set photography
13	TTL, high speed sink, Composition tips and Shooting at Night
14	Filters, Tripod, & Camera Accessories
15	Introduction to a photo editing soft ware (adobe light room)