

# Digital Photography (40-assignment)



**Typical 30-assignment topic areas include:**

- PhotolImpact image editor
- Conventional and digital cameras
- History of photographic technology
- Magnification and lenses
- Panning
- The Flash
- Natural and artificial lighting
- Light and color
- Conventional film processing
- Analog and digital images
- Lenses and optics
- Focal length and depth of field
- Filters and masks
- Filters to correct photographic errors
- Image manipulation
- Image enhancement
- Adding special effects
- Create a watercolor
- Careers in photography
- Comparison of conventional and digital cameras
- Calendar design
- Greetings card design

This is an integrated instructional module designed specifically to operate within a Modular Program environment. It is ideal for use with our Scantek Technology or IT2020 Information Technology programs. It includes a 10-assignment exploratory curriculum and a further 30-assignment in-depth curriculum. The exploratory curriculum and the in-depth curriculum are each split into two parts. Each part includes a pre-test and post test. Where appropriate, the module includes hardware, software and curriculum materials sufficient to provide a complete learning experience.

The curriculum incorporates continuous assessment through questions. When used in conjunction with a ClassAct networked management system, this provides instant feedback of student performance. The assessments begin with a comprehensive pre-test. This quiz includes questions for each subsequent assignment, together with questions that will specifically test math and reading ability.

Every assignment starts with a series of questions designed to track inventory. These ensure that any missing items are located before they are needed.

Each assignment is divided into a series of tasks. Hands-on tasks form the core of the student work. Where appropriate, these are accompanied by research tasks based upon illustrated textbooks and on-screen applications. Assessment questions are incorporated into each task.

**Typical 10-assignment topic areas include:**

- Parts of a digital camera
- Introduction to PhotolImpact image editor
- Viewing and taking photographs
- Lighting
- Tripod
- Lenses and filters
- Loading digital pictures into the computer
- Create, edit and distort an object
- Manipulating text
- Adding special effects
- Web page image and poster design
- T-shirt printing

**Typical 10-assignment activities include:**

- Identify the parts of a digital camera.
- View sample pictures that can be used as background graphics.
- Identify the techniques for professional shot composition.
- Take pictures using the digital camera.
- Discover techniques used by photographers to produce special effects using lighting.
- Take pictures with the advantage of a lighting setup.
- Identify ways of taking a steady picture.
- Discover how lenses are used in photography.
- Identify different types of lenses.
- Use filters to change the color of an image.
- Discover how conventional filters work.
- Compare conventional filters to digital filters.
- Identify how objects are used in creating images.
- Manipulate a photographic image.
- Add text to a project file.
- Apply special effects to a manipulated photographic image.
- Print out a completed poster.
- Explore the uses and careers available in the field of digital photography.
- Print a 'wanted' poster onto a T-shirt.

**Typical 30-assignment activities include:**

- Identify the basic controls of a digital camera.
- Take a picture of a subject and look at the picture using the computer.
- Identify the project to be completed within this module.
- Compare the working differences between a conventional film based camera and a digital camera.
- Identify the advantages and disadvantages of both conventional and digital camera outputs.
- Carry out a practical to conclude the differences in development between conventional and digital images.
- Use computer based and book based resources to identify the evolution of photography.
- Use a mathematical expression describing the advance of technology.
- Identify various techniques for taking a steady picture, using any camera.
- Use a tripod while taking pictures with the digital camera.
- Try to take a picture of an object at close range.
- Identify the format of magnification ratios.
- Look at lenses suitable for close-up photography.
- Use panning to take a picture of a moving object.
- Identify the limitations of panning.
- Take a picture with and without the use of the camera's built in flash.
- Identify the inverse square law of light intensity.
- Discover how natural lighting will affect a photograph.
- Identify various types of artificial lighting.
- Compare photographs taken with natural and artificial lighting.

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**Typical 30-assignment activities include (continued):**

- Create unusual effects using lighting.
- Follow the evolution of photography from black and white to color.
- Use a computer application to simulate light blending.
- Identify lighting types around the classroom.
- Evaluate different methods of capturing a digital image.
- Deduce the most appropriate camera type for various photographic situations.
- Discover the equipment used in a darkroom.
- Discover the developing process.
- Compare the processing involved with conventional and digital photography.
- View sample files stored on the computer.
- Discover how CD-ROMs store digital information.
- Identify simple rules of light and optics.
- Identify various types of lens.
- Calculate the focal length of various lenses.
- Use a computer application to identify the function of various types of lens.
- Use computer aided instruction to identify various types of filter.
- Filter out images using the filter sheets.
- Add a digital filter to a photographic image.
- Use a numerical array to customize a digital filter.
- Use a digital filter to solve a photographic problem.
- Resolve photographic errors in project files.
- Create a linear grayscale mask.
- Apply a filter to an image.
- Create graphic 'objects' from static images.
- Use transformation tools to manipulate graphic objects.
- Identify various painting tools supplied with a computer based image manipulation application.
- Clone an image.
- Complete the problem solving design loop.
- Add text to a sample image.
- Create a CD cover design.
- Compare printed images with images found on screen.
- Add text to project files.
- Create three dimensional text on project images.
- Identify how human vision works in three dimensions.
- Try out a kaleidoscope special effect on a graphic image.
- Add a turnpage special effect to a sample graphic image.
- Simulate a lighting effect using an image manipulation application.
- Apply special effects to project files.

**Typical 30-assignment activities include (continued):**

- Create and print out a watercolor painting using the computer.
- Compare digital special effects with conventional special effects.
- Identify various careers involved in the field of photography.

Each assignment is designed around a list of performance objectives. These lists include academic, technical and occupational objectives. The assignments are written in such a way as to enable a student to attain the performance objectives, with the assessment questions linked to these in order to provide a measure of true competency.

The performance objectives are used by the ClassAct management system to generate a comprehensive portfolio of student competency reports. Default reports supplied with this module include:

- Entry report
- Technical/Occupational Exit report
- Basic Skills report based upon the federal SCAN's report.

**The items supplied with this instructional module include:**

- 10-assignment On-Screen Student Assignment Guide CD
- 10-assignment Student Assignment Guide
- 10-assignment Student Workbook
- 10-assignment Instructor's Guide
- 30-assignment Student Assignment Guide
- 30-assignment Student Workbook
- 30-assignment Instructor's Guide
- Computer Aided Instruction software
- Book: 'Exploring Photography'
- Digital camera
- Docking station
- Tripod
- Color printer
- Pack of printer paper
- Pack of photo card
- PhotoImpact software
- Filter sheets

**Additional items required:**

- Computer

**Module Facts**

For Technology Program, order as: ST380/40 Digital Photography

For IT Program, order as: IM2C Digital Photography

	No.	Average time
Assignments	40	45 minutes
Extension Activities	4	45 minutes
<b>Total</b>		<b>33 hours</b>



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