Wyoming Department of Education Required Virtual Education Course Syllabus

Niobrara County School District # 1

Program Name	Wyoming Virtual Academy	Content Area	VE
Course ID	D-TCH-101V1-AVT	Grade Level	9-12
Course Name	Digital Photography	Digital Photography	0.5
SCED Code	11052G0.5011	Curriculum Type	K12 Inc

COURSE DESCRIPTION

Typically a 9 week course. In Digital Photography, students will learn the basics of photographic composition and lighting, the basics of using a digital camera and the basics of preparing a digital darkroom. Students will also learn basic color theory and the fundamentals of image processing. This course is designed for the student who has no background in photography.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
CV12.2.1	College and career-ready students communicate clearly, effectively, and with reason.
CV12.2.2	College and career-ready students identify and model integrity, ethical leadership and effective management skills.
CV12.2.4	College and career-ready students apply safe, legal, and responsible use of information and technology as appropriate to the task.
CV12.3.1	College and career-ready students identify and define authentic problems and significant questions for investigation.
CV12.3.2	College and career-ready students identify trends, forecast possibilities, and explore complex systems and issues.
CV12.3.3	College and career-ready students employ valid and reliable research strategies and apply prior knowledge to solve a problem or complete a project.
CV12.3.4	College and career-ready students demonstrate creativity and innovation while considering the environmental, social, and economic impacts of decisions.
CV12.4.2	College and career-ready students determine the meaning of symbols, key terms, and other content-specific words and phrases as they are used in technical context. (*Adapted from CCSS RL.9.11)
CV12.5.1	College and career-ready students manage resources to develop, analyze, and implement systems and applications.
CV12.5.2	College and career-ready students productively complete tasks taking constraints, priorities and resources into account.
CV12.5.3	College and career-ready students safely and ethically use current industry-standard tools and emerging technologies.

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS

Unit 1: Digital Photography 1.01 Introduction to the Course	0	0
Unit 1: Digital Photography 1.01 Introduction to the Course	0	0
Unit 2: How It All Works 2.01 Introduction	0	0
Unit 2: How It All Works 2.02 The System of Digitial Photography	0	After you have completed this section, you will be able to: Evaluate your computer for digital darkroom use. Analyze problems in the monitor display for digital imaging using a gray ramp. Calibrate the monitor display for digital imaging. Identify the software you will need for your digital darkroom.
Unit 2: How It All Works 2.02 The System of Digitial Photography	0	After you have completed this section, you will be able to: Evaluate your computer for digital darkroom use. Analyze problems in the monitor display for digital imaging using a gray ramp. Calibrate the monitor display for digital imaging. Identify the software you will need for your digital darkroom.
Unit 2: How It All Works 2.02 The System of Digitial Photography	0	After you have completed this section, you will be able to: Evaluate your computer for digital darkroom use. Analyze problems in the monitor display for digital imaging using a gray ramp. Calibrate the monitor display for digital imaging. Identify the software you will need for your digital darkroom.
Unit 2: How It All Works 2.03 How Digital Cameras Work	0	After you have completed this section, you will be able to: Describe how a digital imaging sensor works. Explain how an image is processed in the camera. Describe how the image is stored in the camera. Explain what the shutter and aperture do.
Unit 2: How It All Works 2.03 How Digital Cameras Work	0	After you have completed this section, you will be able to: Describe how a digital imaging sensor works. Explain how an image is processed in the camera. Describe how the image is stored in the camera. Explain what the shutter and aperture do.
Unit 2: How It All Works 2.03 How Digital Cameras Work	0	After you have completed this section, you will be able to: Describe how a digital imaging sensor works. Explain how an image is processed in the camera. Describe how the image is stored in the camera. Explain what the shutter and aperture do.

Unit 2: How It All Works 2.04 How Lenses Work	CV12.4.2	After you have completed this section, you will be able to: Explain what the 35mm equivalent is and how to use it. Describe the three lens settings used with a zoom lens. Interpret length specifications on digital camera zoom lenses. Assess problems encountered with wide-angle and telephoto settings.
Unit 2: How It All Works 2.04 How Lenses Work	CV12.4.2	After you have completed this section, you will be able to: Explain what the 35mm equivalent is and how to use it. Describe the three lens settings used with a zoom lens. Interpret length specifications on digital camera zoom lenses. Assess problems encountered with wide-angle and telephoto settings.
Unit Review	0	0
Unit 2: How It All Works 2.04 How Lenses Work	CV12.4.2	After you have completed this section, you will be able to: Explain what the 35mm equivalent is and how to use it. Describe the three lens settings used with a zoom lens. Interpret length specifications on digital camera zoom lenses. Assess problems encountered with wide-angle and telephoto settings.
Unit 3: Using Your Digital Camera 3.01 Introduction	0	0
Unit 3: Using Your Digital Camera 3.02 Handling the Camera	0	After you have completed this section, you will be able to: Describe and use the different types of viewfinders. Apply image orientation to the subject for maximum impact. Explain how to hold the camera for the most stable photography.
Unit 3: Using Your Digital Camera 3.02 Handling the Camera	0	After you have completed this section, you will be able to: Describe and use the different types of viewfinders. Apply image orientation to the subject for maximum impact. Explain how to hold the camera for the most stable photography.
Unit 3: Using Your Digital Camera 3.02 Handling the Camera	0	After you have completed this section, you will be able to: Describe and use the different types of viewfinders. Apply image orientation to the subject for maximum impact. Explain how to hold the camera for the most stable photography.
Unit 3: Using Your Digital Camera 3.03 Digital Exposure	0	After you have completed this section, you will be able to: Describe what makes a good exposure. Describe appropriate exposure for an image.

		Explain what exposure compensation is. Apply exposure compensation when needed.	
Unit 3: Using Your Digital Camera 3.03 Digital Exposure	0	After you have completed this section, you will be able to: Describe what makes a good exposure. Describe appropriate exposure for an image. Explain what exposure compensation is. Apply exposure compensation when needed.	
Unit 3: Using Your Digital Camera 3.04 Moving Your Photos	0	After you have completed this section, you will be able to: Transfer your images from your camera to your computer. Locate your transferred images on your computer.	
Unit 3: Using Your Digital Camera 3.04 Moving Your Photos	0	After you have completed this section, you will be able to: Transfer your images from your camera to your computer. Locate your transferred images on your computer.	
Unit 3: Using Your Digital Camera 3.05 Archiving Your Photographs	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Describe what archiving is. Create a folder naming system that works for you. Archive your images safely. Explain how to safely store your archives.	
Unit 3: Using Your Digital Camera 3.05 Archiving Your Photographs	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Describe what archiving is. Create a folder naming system that works for you. Archive your images safely. Explain how to safely store your archives.	
Unit 3: Using Your Digital Camera 3.05 Archiving Your Photographs	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Describe what archiving is. Create a folder naming system that works for you. Archive your images safely. Explain how to safely store your archives.	
Unit Review	0		0
Unit 3: Using Your Digital Camera 3.05 Archiving Your Photographs	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Describe what archiving is. Create a folder naming system that works for you. Archive your images safely. Explain how to safely store your archives.	
Unit 4: The Subject 4.01 Introduction	0		0
Unit 4: The Subject 4.02 Topic of the Photograph	0	After you have completed this section, you will be able to: Clearly define the subject of your photographs.	

		Analyze the impact of changing factors to refine the subject of your photographs.
Unit 4: The Subject 4.02 Topic of the Photograph	0	After you have completed this section, you will be able to: Clearly define the subject of your photographs. Analyze the impact of changing factors to refine the subject of your photographs.
Unit 4: The Subject 4.03 Using Supporting Details	0	After you have completed this section, you will be able to: Explain what supporting details are. Explain how supporting details are used to help define the subject of your photographs.
Unit 4: The Subject 4.03 Using Supporting Details	0	After you have completed this section, you will be able to: Explain what supporting details are. Explain how supporting details are used to help define the subject of your photographs.
Unit 4: The Subject 4.04 Subject, Details, and Context	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what context is in a photograph. Explain how the subject and supporting details work together to set the context of the photograph.
Unit 4: The Subject 4.04 Subject, Details, and Context	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what context is in a photograph. Explain how the subject and supporting details work together to set the context of the photograph.
Unit 4: The Subject 4.04 Subject, Details, and Context	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what context is in a photograph. Explain how the subject and supporting details work together to set the context of the photograph.
Unit Review	0	0
Unit 4: The Subject 4.04 Subject, Details, and Context	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what context is in a photograph. Explain how the subject and supporting details work together to set the context of the photograph.
Unit 5: Composition 5.01 Introduction	0	0
Unit 5: Composition 5.02 Photographic Composition	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Apply the rule of thirds to image composition. Apply the use of leading lines to image composition. Explain the use of viewpoint and perspective in image composition.

Unit 5: Composition 5.02 Photographic Composition	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Apply the rule of thirds to image composition. Apply the use of leading lines to image composition. Explain the use of viewpoint and perspective in image composition.
Unit 5: Composition 5.02 Photographic Composition	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Apply the rule of thirds to image composition. Apply the use of leading lines to image composition. Explain the use of viewpoint and perspective in image composition.
Unit Review	0	0
Unit 5: Composition 5.02 Photographic Composition	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Apply the rule of thirds to image composition. Apply the use of leading lines to image composition. Explain the use of viewpoint and perspective in image composition.
Unit 6: Light and Flash 6.01 Introduction	0	0
Unit 6: Light and Flash 6.02 The Basics	0	After you have completed this section, you will be able to: Explain why we see objects as a certain color. Explain how colors other than the three basic colors are produced.
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Unit 6: Light and Flash 6.02 The Basics	0	After you have completed this section, you will be able to: Explain why we see objects as a certain color. Explain how colors other than the three basic colors are produced.
Unit 6: Light and Flash 6.03 Natural Light	0	After you have completed this section, you will be able to: Explain what natural light is. Explain what front light, side light, and back lighting is. Explain what available light is.
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Unit 6: Light and Flash 6.03 Natural Light	0	Explain what natural light is. Explain what front light, side light, and back lighting is. Explain what available light is.
Unit 6: Light and Flash 6.04 Artificial Light	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what artificial light is and identify some sources. Define the characteristics of the two most common sources of artificial light. Define what a flash is and how it's used. Explain how to avoid or correct the most common problems encountered when using flash.
Unit 6: Light and Flash 6.04 Artificial Light	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what artificial light is and identify some sources. Define the characteristics of the two most common sources of artificial light. Define what a flash is and how it's used. Explain how to avoid or correct the most common problems encountered when using flash.
Unit 6: Light and Flash 6.04 Artificial Light	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what artificial light is and identify some sources. Define the characteristics of the two most common sources of artificial light. Define what a flash is and how it's used. Explain how to avoid or correct the most common problems encountered when using flash.
Unit Review	0	0
Unit 6: Light and Flash 6.04 Artificial Light	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what artificial light is and identify some sources. Define the characteristics of the two most common sources of artificial light. Define what a flash is and how it's used. Explain how to avoid or correct the most common problems encountered when using flash.
Unit 7: Image Processing 7.01 Introduction	0	0
Unit 7: Image Processing 7.02 GIMP Photo Editing Software	0	0
Unit 7: Image Processing 7.02 GIMP Photo Editing Software	0	0

Unit 7: Image Processing 7.02 GIMP Photo Editing Software	0	0
Unit 7: Image Processing 7.03 Working With Color	0	After you have completed this section, you will be able to: Explain what the Hue and Saturation tool is and what effect it may have on elements of an image. Explain what the Color Balance tool is and what effect it may have on elements of an image. Explain what the Brightness and Contrast tool is and the effect it may have on the elements of an image. Use the GIMP digital darkroom application to control your images.
Unit 7: Image Processing 7.03 Working With Color	0	After you have completed this section, you will be able to: Explain what the Hue and Saturation tool is and what effect it may have on elements of an image. Explain what the Color Balance tool is and what effect it may have on elements of an image. Explain what the Brightness and Contrast tool is and the effect it may have on the elements of an image. Use the GIMP digital darkroom application to control your images.
Unit 7: Image Processing 7.03 Working With Color	0	After you have completed this section, you will be able to: Explain what the Hue and Saturation tool is and what effect it may have on elements of an image. Explain what the Color Balance tool is and what effect it may have on elements of an image. Explain what the Brightness and Contrast tool is and the effect it may have on the elements of an image. Use the GIMP digital darkroom application to control your images.
Unit 7: Image Processing 7.04 Resizing Images	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what an aspect ratio is. Apply scaling to an image, preserving the aspect ratio. Apply sharpening to scaled images.
Unit 7: Image Processing 7.04 Resizing Images	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what an aspect ratio is. Apply scaling to an image, preserving the aspect ratio. Apply sharpening to scaled images.
Unit 7: Image Processing 7.04 Resizing Images	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what an aspect ratio is. Apply scaling to an image, preserving the aspect ratio. Apply sharpening to scaled images.

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Unit review	0	0
Unit 7: Image Processing 7.04 Resizing Images	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain what an aspect ratio is. Apply scaling to an image, preserving the aspect ratio. Apply sharpening to scaled images.
Unit 8: Black and White Photography 8.01 Introduction	0	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4,	0

	CV12.4.2, CV12.5.1, 5.2,5.3	
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit Review	0	0
Unit 8: Black and White Photography 8.02 Black and White Photography	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	0
Unit 9: Using Your Photographs 9.01 Introduction	0	0
Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain why you need to prepare images for a given use. Identify the steps in preparing an image for a given use. Apply the preparation necessary for a given use of an image.
Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain why you need to prepare images for a given use. Identify the steps in preparing an image for a given use. Apply the preparation necessary for a given use of an image.
Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to:Explain why you need to prepare images for a given use.Identify the steps in preparing an image for a given use.Apply the preparation necessary for a given use of an image.
Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain why you need to prepare images for a given use. Identify the steps in preparing an image for a given use. Apply the preparation necessary for a given use of an image.
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Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain why you need to prepare images for a given use. Identify the steps in preparing an image for a given use. Apply the preparation necessary for a given use of an image.
Unit Review	0	0
Unit Review	0	0
Unit Review	0	0
Unit 9: Using Your Photographs 9.02 Using Your Work	CV12.2.1, 2.2, 2.4, CV12.3.1, 3.2, 3.3, 3.4, CV12.4.2, CV12.5.1, 5.2,5.3	After you have completed this section, you will be able to: Explain why you need to prepare images for a given use. Identify the steps in preparing an image for a given use. Apply the preparation necessary for a given use of an image.