# WHITEWATER CAREER CENTER

## Graphic Design Program Elements
### January 2023

| Career Cluster: Arts, AV Tech, and Communications  -  Pathway: Digital Design | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Principles** | | **CTE Concentrator A** | | **CTE Concentrator B** | | **Pathway Capstone** | |
| 7140 | Principles of Digital Design | 7141 | Digital Design Graphics | 7138 | Interactive Media Design | 7246 | Digital Design Capstone |

| 7140 Principles of Digital Design | |
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| **Course Description** | *Principles of Digital Design introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.* |
| **Pre/Co Req** | None |
| **Credits** | Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum |
| **Counts Toward** | Counts as a directed elective or elective for all diplomas |
| **ITCC Courses** | |

| CONTENT STANDARDS AND COMPETENCIES | |
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| **Competency #** | **Competency** |
| *Domain* | *Design Fundamentals* |
| 7140.D1.1 | Define and apply design process theory. |
| 7140.D1.2 | Create compositions, artwork, illustrations, layouts, designs, etc. that demonstrate the effective use of the elements and principles of design. |
| 7140.D1.3 | Demonstrate creative and visual problem-solving skills through exercises and/or projects utilizing vector/raster-based graphics programs and/or other traditional processes. |
| 7140.D1.4 | Generate ideas, notes and thumbnails manually or digitally. |
| 7140.D1.5 | Create oral or written justification using appropriate design vocabulary. |
| 7140.D1.6 | Engage in critical peer evaluation. |

| Domain | Photography |
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| 7140.D2.1 | Demonstrate an ability to operate a camera using manual controls. |
| 7140.D2.2 | Measure incidental and reflective light for a subject and determine the proper camera settings. |
| 7140.D2.3 | Demonstrate printing equipment to produce properly exposed and processed prints. |
| 7140.D2.4 | Learn and employ methods of image correction. |
| 7140.D2.5 | Produce photographs which demonstrate an ability to control focus in a variety of situations. |
| 7140.D2.6 | Demonstrate an understanding of depth of field. |
| 7140.D2.7 | Demonstrate an understanding of capturing and freezing motion. |
| 7140.D2.8 | Understand how to apply the theory of equivalent exposures and bracketing. |
| 7140.D2.9 | Demonstrate the effects of time of day on the qualities and direction of available light. |
| 7140.D2.10 | Demonstrate an understanding of photographic filters and how they work. |
| 7140.D2.11 | Demonstrate an understanding of photographic composition and design. |
| 7140.D2.12 | Produce photographs that exhibit conceptual thinking ability. |

| SAMPLE ACTIVITIES | | | |
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| *Domain* | *Technical Skills* | *Activity* | *Assessment / Evaluation* |
| *Design Fundamentals* | <ul><li>Student creates visual concepts, using computer software or by hand, to communicate ideas that inspire, inform, and captivate the audience and/or client.</li><li>Student develops compositions, artwork, illustrations, layouts, designs, etc. that demonstrates the effective use of the elements and principles of design.</li><li>Student designs useful and meaningful branding materials such as brochures, posters, packaging, web and other social media, print and media advertisements.</li><li>Student demonstrates creative and visual problem-solving skills through mood boarding, research, sketching, thumbnails, rough drafts and variations.</li><li>Student adheres to the development & production schedule to meet deadlines in an efficient, professional manner.</li><li>Student engages in critical peer & client evaluations to receive and provide critique on design development using appropriate design vocabulary.</li><li>Student delivers professional client & project presentations.</li></ul> | <ul><li>Project 1 - Hello, My Name Is: Personal Logo Design.</li><li>Play Poster Designs.</li><li>Client Projects - Branding.</li><li>Style Guide Development.</li><li>Packaging Design.</li></ul> | <ul><li>Use of various clients/class critiques.</li><li>Final Project Presentations.</li><li>Project scoresheet.</li></ul> |
| *Photography* | <ul><li>Vector/Raster Creative Cloud Programs (Illustrator, Photoshop, InDesign): Student demonstrates proficiency in effective operation & understanding of the required software for vector and raster graphics.</li></ul> | <ul><li>PSA Poster Project.</li><li>Packaging Project.</li></ul> | <ul><li>Use of various clients/class critiques.</li><li>Final Project Presentations.</li><li>Project scoresheet.</li></ul> |

| 7141 Digital Design Graphics | |
|---|---|
| Course Description | *Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices.* |
| Pre/Co Req | Principles of Digital Design |
| Credits | Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum |
| Counts Toward | Counts as a directed elective or elective for all diplomas |
| ITCC Courses | |
| Promoted Certifications | Adobe Certified Associate (ACA) Illustrator |

| CONTENT STANDARDS AND COMPETENCIES | |
|---|---|
| Competency # | Competency |
| *Domain* | *Vector Graphics* |
| 7141.D1.1 | Navigate within the computer's operating environment. |
| 7141.D1.2 | Demonstrate a working knowledge of the hardware components and peripherals. |
| 7141.D1.3 | Execute fundamental type formatting and editing. |
| 7141.D1.4 | Develop the critical basics of effective page layout software operation. |
| 7141.D1.5 | Utilize illustration tools to manipulate paths and anchor points. |
| 7141.D1.6 | Recognize graphic file formats and appropriate uses. |
| *Domain* | *Raster Graphics* |
| 7141.D2.1 | Operate image input devices. |
| 7141.D2.2 | Explain the physical properties of light and the basic laws of photographic optics (how light behaves). |
| 7141.D2.3 | Explain the differences between various graphic file formats, image resolution, and proper light levels. |
| 7141.D2.4 | Create images that use the principles/fundamentals of design. |

| 7141.D2.5 | Demonstrate the ability to solve communication design problems using imaging. |
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| 7141.D2.6 | Develop hand/computer-imaging skills. |
| 7141.D2.7 | Apply the rules of effective typography using hand and/or computer skills. |
| 7141.D2.8 | Demonstrate a variety of imaging methods in application to class projects. |
| 7141.D2.9 | Be able to assess your work and others constructively and effectively. |

| SAMPLE ACTIVITIES | | | |
|---|---|---|---|
| *Domain* | *Technical Skills* | *Activity* | *Assessment / Evaluation* |
| *Vector Graphics* | ● Vector/Raster Creative Cloud Programs (Illustrator, Photoshop, InDesign): Student demonstrates proficiency in effective operation & understanding of the required software for vector and raster graphics.<br>● Student develops compositions, artwork, illustrations, layouts, designs, etc. that demonstrates the effective use of the elements and principles of design. | ● Project 1 - Hello, My Name Is: Personal Logo Design<br>● Play Poster Designs<br>● Client Projects - Branding<br>● Typeface.<br>● Word/Object Project.<br>● AI Tutorials.<br>● Packaging Project. | ● Use of various clients/class critiques<br>● Final Project Presentations<br>● Project scoresheet |
| *Raster Graphics* | ● Student develops compositions, artwork, illustrations, layouts, designs, etc. that demonstrates the effective use of the elements and principles of design.<br>● Student develops compositions, artwork, illustrations, layouts, designs, etc. that demonstrates the effective use of the elements and principles of design. | ● PSA Poster Project.<br>● PS Tutorials.<br>● Client Projects & Branding.<br>● Design for Good Project. | ● Use of various clients/class critiques.<br>● Final Project Presentations.<br>● Project scoresheet. |

| 7138 Interactive Media Design | |
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| **Course Description** | *Interactive Media Design focuses on the tools, strategies, and techniques for interactive design and emerging technologies, like web and social media. Students will learn the basics of planning, shooting, editing and post-producing video and sound. Additionally, students will explore the process of integrating text, graphics, audio and video for effective communication of information.* |
| **Pre/Co Req** | Principles of Digital Design; Digital Design Graphics |
| **Credits** | Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum |
| **Counts Toward** | Counts as a directed elective or elective for all diplomas |
| **ITCC Courses** | |

| CONTENT STANDARDS AND COMPETENCIES | |
|---|---|
| **Competency #** | **Competency** |
| *Domain* | *Web and Social Media* |
| 7138.D1.1 | Discuss the current online/interactive environment and the unique design challenges this media (websites, mobile, and social media) presents. |
| 7138.D1.2 | Identify and apply effective design solutions based on content. |
| 7138.D1.3 | Understand how User Experience (UX) impacts online/interactive media. |
| 7138.D1.4 | Discuss the importance of proper research, brainstorming and thumbnails. |
| 7138.D1.5 | Analyze and optimize graphic files for web delivery. |
| 7138.D1.6 | Evaluate the aesthetics of interactive media such as websites, social media, mobile design. |
| 7138.D1.7 | Recognize the importance and power of social media in maintaining content. |
| 7138.D1.8 | Identify current and emerging social media trends. |
| 7138.D1.9 | Understand Search Engine Optimization (SEO) theory and current practices. |
| 7138.D1.10 | Apply professional quality standards in the role of blogging, social networking, dynamic media, and the mobile web to build the brand of a company, person, or organization |
| 7138.D1.11 | Implement interactive media such as websites, social media mobile design using current editing software. |
| 7138.D1.12 | Manipulate and optimize images for web utilization with industry-standard graphic software. |
| 7138.D1.13 | Understand web hosting options. |

| Domain | Video and Sound |
|---|---|
| 7138.D2.1 | List and compare various formats for video recording, storage and sequencing. |
| 7138.D2.2 | Describe the production process and define the responsibilities of production team members. |
| 7138.D2.3 | Learn the basics of planning, shooting, editing and post-producing video. |
| 7138.D2.4 | Analyze videos for technical quality and aesthetic principles. |
| 7138.D2.5 | Demonstrate competent usage and handling of video equipment. |
| 7138.D2.6 | Incorporate effective visual aesthetics in capturing video content. |
| 7138.D2.7 | Compile and edit video content into creative and technically successful projects. |

| SAMPLE ACTIVITIES | | | |
|---|---|---|---|
| **Domain** | **Technical Skills** | **Activity** | **Assessment / Evaluation** |
| **Web and Social Media** | <ul><li>Students learn the basics of storyboarding, planning, wireframing, editing, and navigation to assist in their development process.</li><li>Students understand the value of both User Interface (UI) design and User Experience (UX) design to their multimedia projects. Student demonstrates creative and visual problem-solving skills through mood boarding, research, sketching, thumbnails, rough drafts and variations.</li><li>Student adheres to the development & production schedule to meet deadlines in an efficient, professional manner.</li><li>Student engages in critical peer & client evaluations to receive and provide critique on design development using appropriate design vocabulary.</li><li>Student delivers professional client & project presentations.</li></ul> | <ul><li>NextTech Computer Science for Good App Competition.</li><li>Design for Good Project.</li><li>App Design Capstone.</li></ul> | <ul><li>Use of various clients/class critiques.</li><li>Final Project Presentations.</li><li>Project scoresheet.</li></ul> |

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| **Video and Sound** | <ul><li>Student develops visual concepts, using various animation & film techniques, to communicate ideas that captivate the audience.</li><li>Students learn the basics of storyboarding, planning, wireframing, editing, and navigation to assist in their development process.</li></ul> | <ul><li>Word/Object Animation.</li><li>Animated Short .</li><li>Kinetic Type Project.</li><li>AE and AN tutorials.</li></ul> | <ul><li>Use of various clients/class critiques.</li><li>Final Project Presentations.</li><li>Project scoresheet.</li></ul> |

| 7246 Digital Design Capstone | |
|---|---|
| Course Description | *The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and/or web design. Depending on the length of the course, students may focus their efforts on one area or explore multiple aspects.* |
| Pre/Co Req | Digital Design Concentrator Sequence |
| Credits | Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max |
| Counts Toward | Counts as a Directed Elective or Elective for all diplomas |
| ITCC Courses | |
| Promoted Certifications | Adobe Certified Associate (ACA) InDesign & Photoshop |

| CONTENT STANDARDS AND COMPETENCIES | |
|---|---|
| Competency # | Competency |
| *Domain* | *User Experience/User Interface* |
| 7246.D1.1 | Describe, appreciate and apply the history, development, and standards of experience/interface design. |
| 7246.D1.2 | Describe and use UX/UI terminology. |
| 7246.D1.3 | Demonstrate knowledge of the standards, terms, and applications of UX/UI. |
| 7246.D1.4 | Demonstrate an understanding of the various methods used in this field. |
| 7246.D1.5 | Through various assignments communicate your research, analysis, scenarios, etc. which show comprehension of the end users' needs. |
| 7246.D1.6 | Develop an awareness of all the interrelated factors that impact user experience (ADA compliance, mobile, user centered design, societal factors, etc.). |
| 7246.D1.7 | Demonstrate sound user experience design practice relative to the enhancement of communication and visual appeal. |
| 7246.D1.8 | Evaluate your peer and professional work critically. |
| *Domain* | *Video Production Editing* |
| 7246.D2.1 | Ingest digital footage into an editing system. |
| 7246.D2.2 | Explore various aspects for the editing process. |

| 7246.D2.3 | Understand and use appropriate editing styles. |
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| 7246.D2.4 | Create and refine a rough cut. |
| 7246.D2.5 | Produce projects using a non-linear editing system. |
| 7246.D2.6 | Integrate audio and video within a project. |
| 7246.D2.7 | Synchronize multiple concurrent video angles taken from a multi-camera shoot. |
| 7246.D2.8 | Experiment with special effects, masking, and matting. |
| 7246.D2.9 | Produce projects of varying lengths and output mediums. |
| 7246.D2.10 | Edit projects down to a specific time frame. |
| 7246.D2.11 | Present orally a project to your peers, clients, faculty, or advisors |
| **Domain** | **Motion Graphics** |
| 7246.D3.1 | Develop advanced creative interfaces for use in multimedia projects. |
| 7246.D3.2 | Integrate the principles of good multimedia design with a strong focus on the aesthetic  component including research, brainstorming, and storyboarding. |
| 7246.D3.3 | Synchronize animation and sound. |
| 7246.D3.4 | Incorporate various mediums, including sound, images, audio, etc. |
| 7246.D3.5 | Describe the different roles of a multimedia producer within the industry. |
| 7246.D3.6 | Analyze the use of multimedia as a marketing tool. |
| 7246.D3.7 | Appraise and integrate different content and software to achieve one product. |
| 7246.D3.8 | Use basic programming skills to add functionality to a project. |
| 7246.D3.9 | Implement usability and functionality testing processes. |
| **Domain** | **3D Rendering and Animation** |
| 7246.D4.1 | Apply the ability to employ available 3D rendering and animation software packages. |
| 7246.D4.2 | Construct and render 3D models and textures for use in static and dynamic simulated  environments. |
| 7246.D4.3 | Utilize constructed environments and models in various animation techniques. |
| 7246.D4.4 | Explain the history of computer animation. |
| 7246.D4.5 | Evaluate the possibilities of computer animation and how it is utilized in a variety of industries  today. |
| **Domain** | **Web Design** |

| 7246.D5.1 | Explain Information Architecture (IA) how interactive media design affects user experience (UX), and how that translates to a successful user interface (UI). |
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| 7246.D5.2 | Describe and apply effective interactive media design processes—including research, web project definition, organization, structure, process, and interaction. |
| 7246.D5.3 | Identify and apply effective design solutions based on content. |
| 7246.D5.4 | Discuss the importance of proper research, brainstorming and thumbnails, and wireframing. |
| 7246.D5.5 | Evaluate the aesthetics of interactive design pertaining to emerging trends. |
| 7246.D5.6 | Discuss the history of interactive design and te relationship they have with interactive design today |
| 7246.D5.7 | Discuss design principles (color, layout, typography) as they apply to interactive design. |
| 7246.D5.8 | Construct web pages using standards- compliant HTML5 and CSS3 that successfully passes validation tests of theW3C. |
| 7246.D5.9 | Discuss the use of helper technologies such as CSS frameworks, and when and why to use them. |
| 7246.D5.10 | Implement a simple javascript/Javascript plugin to add dynamics to a website. W311. Create a final static website meeting the needs of a client. |

| SAMPLE ACTIVITIES | | | |
|---|---|---|---|
| **Domain** | **Technical Skills** | **Activity** | **Assessment / Evaluation** |
| **User Experience/User Interface** | ● Students learn the basics of storyboarding, planning, wireframing, editing, and navigation to assist in their development process.<br>● Students understand the value of both User Interface (UI) design and User Experience (UX) design to their multimedia projects.<br>Student demonstrates creative and visual problem-solving skills through mood boarding, research, sketching, thumbnails, rough drafts and variations.<br>● Student adheres to the development & production | ● NextTech Computer Science for Good App Competition.<br>● Design for Good Project.<br>● App Design Capstone.<br>● Final Online Portfolio. | ● Use of various clients/class critiques.<br>● Final Project Presentations.<br>● Project scoresheet. |

| | | | |
|---|---|---|---|
| | schedule to meet deadlines in an efficient, professional manner.<br>● Student engages in critical peer & client evaluations to receive and provide critique on design development using appropriate design vocabulary.<br>● Student delivers professional client & project presentations. | | |
| **Video Production Editing** | ● Student develops visual concepts, using various animation & film techniques, to communicate ideas that captivate the audience.<br>● Students learn the basics of storyboarding, planning, wireframing, editing, and navigation to assist in their development process. | ● Personal Logo Animation Project.<br>● Word/Object Animation.<br>● Animated Short.<br>● Kinetic Type Project.<br>● AE and AN tutorials. | ● Use of various clients/class critiques.<br>● Final Project Presentations.<br>● Project scoresheet. |
| **Motion Graphics** | ● Students learn the basics of storyboarding, planning, wireframing, editing, and navigation to assist in their development process.<br>● Student develops visual concepts, using various animation & film techniques, to communicate ideas that captivate the audience. | ● Personal Logo Animation Project.<br>● Word/Object Animation.<br>● Animated Short.<br>● Kinetic Type Project.<br>● AE and AN tutorials. | ● Use of various clients/class critique.<br>● Final Project Presentations.<br>● Project scoresheet. |
| **Web Design** | ● Students understand the value of both User Interface (UI) design and User Experience (UX) design to their multimedia projects.<br>● Students understand the value of User Interface (UI) design and User Experience (UX) design to multimedia projects. | ● NextTech Computer Science for Good App Competition.<br>● Design for Good Project.<br>● App Design Capstone.<br>● Final Online Portfolio. | ● Use of various clients/class critique.<br>● Final Project Presentations.<br>● Project scoresheet. |