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For the CTC:

Director — Date: 03/24/21

For the College:

Kristy A. Bishop, Ph.D. — Date: 3/25/21

Kristy A. Bishop, Ph.D.
Vice-President of Academic Affairs

Updated 05/20/2019

Appendix I

Articulated Courses

Guide for Local Articulation

Curriculum Guide for the articulation of Computer Technology/Technicians & Support Services college coursework and credit between WCCC and ICTC

WCCC	ICTC
CPT 145 Introduction to Computer Technology (3 cr.)	CIP 10.9999
CPT 150 Microcomputer Concepts (3 cr.)	
GCT 125 Emerging Technology (3 cr.)	
GCT 161 Creative Imaging (3 cr.)	
GCT 180 2D Animation (3 cr.)	

Course Outline

Course Information

A.	Course Title:	Introduction to Information Processing
B.	Course Number:	CPT 145
C.	Lecture, Lab and Credit Breakdown:	3-0-3
D.	Course Prerequisite:	None

Catalog Description

This survey course provides students with an overview of computer technology topics-hardware, software, networking, Internet, data management, system design, ethical issues, mobile computing, programming and careers in computer technology. It is designed as a first course for students pursuing a degree in the computer field.

General Course Objectives

This course will develop students' knowledge of:

- Technical terminology related to computers, electronic communications, and application software.
- Digital systems, communications networks, and applications in use today.
- The societal impact of Information Systems.
- The functions of an operating system, including allocating system resources, and media and file management.
- Control structures and development issues associated with computer programming.
- Bibliographic resources to identify and synthesize current information.

Outcomes

Upon successfully completing this course, students will be able to:

- Use correct terminology associated with digital information processing.
- Identify media, hardware, software, and procedural components linking telecommunications systems.
- List the advantages and disadvantages of database systems – relational, object-oriented, multi-dimensional.
- Analyze Web information sources for relevance and accuracy; and synthesize, evaluate, and communicate the results, demonstrating competencies at the college level.
- Describe how an Information System is used citing examples from business, education, and personal use.
- Compare and contrast operating systems found on a variety of devices.
- Describe the role and use of application software in a variety of settings – business, education, personal.
- Identify and describe activities involved in designing and developing computer programs.
- Identify positive social and ethical behaviors when using technology and the consequences of misuse.

Topical Course Outline

1. Introduction to course
2. Hardware
    a. CPU and Memory
    b. Data storage devices
    c. Input/Output devices
3. Software
    a. Standards
    b. Application software
4. System software
    a. Standard options
    b. Windows
    c. Linux
    d. Macintosh
5. Networks
    a. Communication basics
    b. The Internet and the World Wide Web
    c. Web Pages
6. Information Systems in Business
    a. Software Development
    b. Computers -- Design a System
7. Social Issues
8. Programming
    a. Language choice
    b. Logic structures
    c. Process

References, Resources, and Learning Materials:

Material available in the Learning Resources Center **Reviewed and approved by:**

Division Dean — Date: 10/4/17

COURSE OUTLINE

Course Information

A.	Course Title:	Microcomputer Concepts
B.	Course Number:	CPT 150
C.	Lecture, Lab and Credit Breakdown:	3/0/3
D.	Course Prerequisite(s):	None

Catalog Description

This course introduces students to the Microcomputer and various state-of-the-art software applications: word processing, spreadsheet, presentation, and database. The overall goal of the course is to guide the student into becoming a proficient microcomputer user.

Learning Objectives

The purpose of this course is to:

Develop students' knowledge of and skill using:

- Microcomputer operating system components, selected application software, and electronic communication techniques.
- Word processing software for document development for college and workplace requirements.
- Spreadsheet software for worksheet development for college and workplace requirements.
- Presentation software for communication of facts and ideas to meet college and workplace requirements.
- Database software for data organization, retrieval, and reporting for college and workplace requirements.
- Internet for information retrieval and communication for college and workplace requirements.

Course Outcomes

Upon successfully completing this course, students will be able to:

- Login to a network, use Windows graphical user interface, create a structure of folders to manage files, save, and retrieve files from a variety of mediums.
- Use email to login to email account, create, and send email, receive, read, save a message in a folder, and attach a file.
- Perform document formatting options with Microsoft Word including margins, orientation, page breaks, page numbers, headers and footers, cover page, find and replace, spelling and grammar, save, save as, print, and execute formatting options such as paragraph line spacing, indents, tabs, borders, lists, columns, styles, tables of contents, and indexing. Create, format, and use tables and graphics; collaborate, create a bibliography, add reference resources, and merge files.

- Design, create, edit, format, and print spreadsheets; create formulas and use functions with appropriate cell referencing, for calculation of cell contents; define, create, and print graphs that include titles, legends, borders, and color.
- Use Access to create a database, designate a primary key, navigate a datasheet, and manage a datasheet; design a database and set field properties, create and manipulate Access tables, and define table relationships; create, modify, use queries, and use calculations in an Access database; create, use, and modify forms and reports to extract information from an Access database.
- Create presentations from general guidelines using text and graphic objects; format presentations for a variety of settings.

This course will be predominantly hands-on in order for students to develop the competencies listed above.

Topical Course Outline

A. Overview of WCCC digital environment, Windows, and electronic communications
   1. Academic LAN and Internet access
   2. Explore college provided email
   3. Use Windows environment
   4. Management and organization of media

B. Word Processing
   1. Review Creating, Editing, Enhancing, Spelling, Thesaurus
   2. Document preparation
   3. Formatting a document
   4. Tables
   5. References and Merging

C. Spreadsheets
   1. Creating, Copying, Moving, Formatting
   2. Formulas
   3. Functions, cell references
   4. Graphing

D. Databases
   1. Create Tables, Primary Key, Datasheet View
   2. Fields, Relationships, and queries
   3. Create forms and reports

E. Presentations
   1. Create a presentation
   2. Insert graphics; modify text and graphic objects

References, Resources, and Learning Materials Text:

Material available in the Library

Reviewed and Approved by:

Division Dean — Date: 10/28/19

Converted: 10-25-2019

COURSE OUTLINE

Course Information:

A. Course Title: **Emerging Technology I**

B. Course Number: **GCT 125**

C. Lecture, Lab, and Credit Breakdown: **3–0–3**

D. Course Prerequisite: *Macintosh OS X or Windows 07|08 hands-on experience.*

Course Description:

An introductory course exploring Adobe web design and publishing tools to create expressive motion and interactive content for mobile devices and desktop browsers incorporating web standards like HTML5, CSS3, Java Script.

—*Students provide their own backup media and are responsible for archiving their coursework.*

Course Objectives:

This course will develop students' knowledge of:

A. Setting project requirements–planning and designing Flash applications. [A: 1; D: 1]

B. Understanding Adobe Flash Professional interface. [C: 3]

C. Building Rich Media elements: interactive and visual output. [E: 3]

D. Identifying Rich Media design elements. [H: 2, 3]

E. Evaluating Rich Media elements–technical and usability tests. [C: 3; F: 4]

Learning Outcomes:

Upon successfully completing this course, students will be able to . . .

- demonstrate their ability to navigate within the Flash environment
- create and modify basic illustrations, motion graphics, and Web pages
- produce frame-by-frame, shape tweening, and motion tweening kinetic graphics
- demonstrate their ability to create a Flash movie with sound clips
- use ActionScript to add interactivity and custom functionality to documents
- identify the differences in players and the publishing settings
- connect Flash projects to external data sources to create data-driven applications
- load and optimize Web media content
- create and edit text, shapes, symbols, instances, and groups.
- use the site Library to organize and manage your assets.

- incorporate motion guides and shape hints to control tweens.

- add actions to frames to control timeline and buttons to control user interactivity.
- use basic ActionScript, TextField objects, MovieClip Methods, and Event Handlers.
- incorporate user-interface (UI) components and forms, and imported sound and video.
- research the issues of accessibility, usability, and versatility as they apply to Flash Web communications.

Topical Outline:

A. Adobe Flash New Features
B. Working with Graphics
C. Creating and Editing Symbols
D. Animating Symbols
E. Advanced Motion
F. Animating Shapes and Using Masks
G. Creating Interactive Navigation
H. Using Text
I. Working with Sound and Video
J. Publishing for Different Platforms

Reference Materials:

- Adobe Flash Professional CC Classroom in a Book (2014 release). (ISBN-13: 978-0-13-392710-8). Russell Chun, Adobe Press, Published: 2014. (Required Textbook)
- How to Cheat in Adobe Flash CC: The Art of Design and Animation. (ISBN-13: 978-0-240-52591-4). Chris Georgenes, Focal Press, Published: 2014 (*Reference*)
- Adobe Flash Professional CC Classroom in a Book. (ISBN: 978-0-321-92785-9). Adobe Creative Team, Peachpit Press, Published: 2013.
- Adobe Edge Animate Classroom in a Book, (ISBN: 978-0-321-84260-2). Adobe Creative Team, Adobe Press, Published: 2013. (*Reference*)
- Adobe Flash Professional CS6 Classroom in a Book, (ISBN: 978-0-321-82251-2). Adobe Creative Team, Adobe Press, Published: 2012. (*Reference*)
- Adobe Flash CC Help Menu > Flash CC Help...

1/20/16

WESTMORELAND COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Information

A. Course Title: Creative Imaging I
B. Course Number: GCT 161
C. Lecture, Lab and Credit Breakdown: 3-0-3
D. Course Prerequisite(s): None
E. Course Co-requisite(s): None

Catalog Description

An introductory course exploring creative imaging concepts and techniques. The course covers nondestructive imaging using layers, masking, adjustment layers, blend modes, and Smart Objects, as well as, how to achieve creative effects with filters, layer effects, illustrative type, and basic color adjustments for creating panoramas and composites.

Learning Objectives

The purpose of this course is to:

1. Exhibit proficiency in navigating the application interface and panels.
2. Design Solutions that reflect critical thinking, problem solving, and quantitative reasoning.
3. Integrate basic selection and edge refinement tools to isolate parts of an image – masks.
4. Manipulate layers and create composite images using advanced selections and layering techniques.
5. Create adjustment layers for editable, non-destructive changes to image coloration, exposure and filter effects.
6. Evaluate and correct image imperfections using the info panel, adjustment layers, and retouching tools.
7. Exhibit personal attributes that enable the student to interact effectively and harmoniously with others.

Course Outcomes

Upon successfully completing this course, students will be able to:

1. Develop information management skills while researching references and influences for design concepts.
2. Problem-solve creatively and develop quantitative reasoning skills.
3. Apply critical and creative thinking skills in the composition of visually attractive projects.
4. Acquire new/update previous technical skills, techniques, and terminology.
5. Develop collaborative partnerships with multiple disciplines.
6. Produce non-destructive composite images that are easily modified or updated, for screen, print or mobile use.

Topical Course Outline

1. Getting acquainted with Adobe Photoshop's interface and panels
2. Manage and organize files and assets
3. Basic Photoshop preference settings and non-destructive workflow
4. Selection fundamentals: creating, transforming, and saving
5. Working with layers, layer masks, clipping groups, text, and vector shapes
6. Smart Objects, adjustment layers, filer effects, and layer styles
7. Color, brushes, brush settings, and digital painting
8. Correcting and improving image quality using Histograms, Levels, Curves, and Sharpening commends
9. Natural and character animation
10. Create clear, readable typography on a photographic background using color to enhance legibility
11. Develop effective design concepts with focal points based on contrast, placement, or eye contact
12. Save and export various file fomites based on usage: print, screen, web or mobile devices

References, Resources, and Learning Materials Text:

- Adobe Photoshop CC Classroom in a Book (2020). (ISBN:978-0-13-644799-3), Andrew Faulkner, Conrad Chavez, Adobe Press-Peachpit Press, Published 2019.
- The Hidden Power of Adjustment Layers in Photoshop. ISBN-13: 978-0-321-95771-9) Scott Valentine, Adobe Press-Peachpit Press. Published: 2013
- The Hidden Power of Blend Modes in Photoshop. (ISBN-13: 978-0-13-248777-1) Scott Valentine, Adobe Press-Peachpit Press. Published: 2013.
- Adobe Application tutorials included within each application (helpx.adobe.com).
- Adobe Application user guides included within each application (helpx.adobe.com).

- Adobe Specific Application community forums and subforums (forums.adobe.com).

Reviewed and Approved by:

Division Dean Date

COURSE OUTLINE

Course Information

A. Course Title: 2-D Animation
B. Course Number: GCT 180
C. Lecture, Lab and Credit Breakdown: 3-0-3
D. Course Prerequisite(s): None
E. Course Co-requisite(s): None

Catalog Description

Current desktop animation software lets you design and create web-based interactive vector and bitmap animations, expressive characters integrating audio for cartoons, banner ads, games, apps and the web that can quickly publish to multiple platforms and reach viewers on desktop, mobile and TV.

Learning Objectives

The purpose of this course is to:

1. Distinguish foreground characters and objects from the background
2. Create digital images: bitmaps and vectors
3. Prepare, plan and organize an animation project-storyboards
4. Create and share symbols: graphics, movie clips, buttons
5. Create limited animation cartoons using layers and nested symbols
6. Incorporate dialogue, sound/foley effects and background music
7. Incorporate keyframes, tweening and animatics for projects
8. Create animated motion i.e., facial animation, walking and running
9. Stage a scene: backgrounds, scene silhouettes and camera moves
10. Make animations interactive incorporating button, menus and simple scripting
11. Publish Animate movies.

Course Outcomes

Upon successfully completing this course, students will be able to:

1. Incorporate Adobe's Creative Suite applications.
2. Include the animation principles of anticipation, follow through, bounce and squash in creating realistic animations.
3. Incorporate bitmap images into text animations.

4. Work around the constraints of file size and the limitations of the computer screen.
5. Add interactive elements.
6. Incorporate digitized video and sound into animation projects.
7. Import Photoshop and 3D background images for backgrounds.
8. Author optimized content for mobile devices

Topical Course Outline

A. Introduction to traditional and digital animation
B. Design styles – designing for animation and drawing techniques
C. Transformation and distortion-free transform tool
D. Masking – most indispensable tool
E. Motion tips and tricks – emphasize intensity and realism
F. Character animation – nesting animations and symbols
G. Animate to video – QuickTime and AVI
H. Animation examples – How do I…
I. Working with sound – record, edit and load dynamically
J. Working with video – importing video and FLV
K. Interactivity – ActionScript 3.0
L. Going mobile – platform to author content
M. Extending Animate – automating functionality
N. Time-saving tips – speed up your workflow

References, Resources, and Learning Materials Text:

- Vector Basic Training. 2nd Edition. (ISBN: 978-0-1-3417673-4). Von Glitschka, New Riders, Published: 2016.
- Adobe Application tutorials included within each application (helpx.adobe.com).
- Adobe Application user guides included within each application (helpx.adobe.com).
- Adobe Specific Application community forums and subforums (forums.adobe.com).

Reviewed and Approved by:

Division Dean Date