



Web Development and Graphic Design 2007-2008



NW Tech Course #	Course Title	OCAS Course #	NOC Credit Hrs	OHLAP Approved
WEB110A	Safety Fundamentals			
WEB120A	Business, Management & Information Tech Core (NOC – ITEC2106 Information Technology Essentials)	8431/ 8461	6	
WEB130A	Employability Skills (NOC – ITEC2213 Employability Skills)		3	
WEB140A	Fundamentals of Web Design (NOC – ITEC 1313 Web Design I)	8463	3	Yes
WEB150A	Image Management Techniques (NOC – ITEC1323 Web Graphics I)	8464	3	Yes
WEB160A	Design Tools & Electronic Marketing Broken into two courses: Digital Animation Marketing Concepts	8465		Yes
WEB170A	Digital Animation (Part of ODCTE 8465 Design Tools & Electronic Marketing)			
WEB180A	Marketing Concepts (Part ODCTE 8465 Design Tools & Electronic Marketing)			
WEB190A	Interactive Media Capstone (NOC – ITEC2356 Web Projects/Electives)	8468	6	
WEB200A	Advanced Design Techniques (NOC – ITEC 2316 Web Design II)	8466	6	Yes
WEB210A	Advanced Digital Animation (NOC – ITEC 2336 Web Animation)	8467	6	Yes
WEB220A	Web Scripting Foundations (NOC – ITEC 1346 HTML and Internet Fundamentals)	8472	6	Yes
WEB230A	Internet Programming (NOC – ITEC 2386 Internet Programming)		6	
WEB240A	Database Essentials (NOC – ITEC1616 Database Essentials)		6	
WEB250A	Database Design & Programming (NOC – ITEC 2376 Structured Query Language)	8473	6	Yes
WEB260A	E-Commerce Concepts (NOC – ITEC 2366 E-Commerce Concepts & Implementation)		6	
WEB270A	Server-Side Scripting (NOC – ITEC 2226 Server-Side Scripting)		6	
WEB280A	Web Applications Development (NOC – ITEC2396 Web Applications Development)		6	
WEB290A	E-Commerce Site Production (NOC – ITEC 2440 Website Management & Analysis)	8474	6	Yes
WEB300A	Desktop Publishing & Graphic Design (NOC – ITEC1113 Layout and Design Fundamentals)	8469	3	Yes
WEB310A	Digital Editing & Production Photography (NOC – ITEC1143 Digital Photography)	8471	3	
WEB320A	Graphic Design or Desktop Publishing Capstone (NOC – ITEC???? Graphic Design Capstone)	????	3	
WEB330A	Advanced Web Graphics (NOC – ITEC 2326 Web Graphics II)		6	
WEB340A	Digital Video (NOC – ITEC 2346 Imaging, Virtual Reality and Digital Video)		6	

DESCRIPTIONS

WEB110A Safety Fundamentals:

Students will be able to identify and practice basic safety skills in the classroom and workplace.

WEB120A Business, Management & Information Technology Core:

This course will provide the basis for preparing students for Business and IT positions through hands-on and project-based learning, textbook assignments and internet research. It is a core course for students who want to obtain basic literacy to understand key computer concepts, applications, and the internet. The course provides a foundation for achieving application-specific computer certifications.

Certifications targeted: Brainbench Computer Fundamentals

Brainbench Computer Literacy

College Credit: ITEC2106 Information Technology Essentials – NOC – 6 hours

OCAS Course #: 8431/8461

Higher Ed Matrix #: BT 102

Resources Used: Discovering Computers 2003 Concepts for a Digital World, ISBN 0-7895-6514-5

Lynda.com Windows XP Essential Training

Lynda.com Outlook 2003 Essential Training

Lynda.com Learning Internet Explorer 6

Lynda.com Home and Small Office Networking

Lynda.com Computer Privacy and Security Essential Training

WEB130A Employability Skills:

A daily analysis of industry trends and corporate needs prepares each student to seek employment intelligently. The preparation of a design portfolio and presentation equips each graduate from the program to present themselves and their talents in a thorough and professional manner. The opportunity to participate in Business Professionals of America enhances their involvement with other business professionals and provides each student with an opportunity to refine their presentation skills.

Certifications targeted: Brainbench Interpersonal Communications (Optional)

Brainbench Interviewing and Hiring Concepts (Optional)

Brainbench Legal Issues for Employees (Optional)

Brainbench Sexual Harassment Awareness (Optional)

Brainbench Time Management (Optional)

Brainbench Workplace Fundamentals (Optional)

Brainbench English Listening Comprehension (Optional)

Brainbench Reading Comprehension (Optional)

Brainbench English Vocabulary (Optional)

Brainbench Spelling (Optional)

Brainbench Written English (Optional)

College Credit: ITEC2213 Employability Skills – NOC – 3 hours

OCAS Course #:

Higher Ed Matrix #: BT 002 Employability Skills

Resources Used: Reaching Your Potential Concise, ISBN 1401881890

ACE the IT Job Interview!, ISBN 0-07-222581-5

ACE the IT Job Resume!, ISBN 0-07-219403-0

Expert Resumes for Computer and Web Jobs, ISBN 1593571275

101 Best Tech Resumes, ISBN 007140886X

Designing Creative Resumes, ISBN 156052605X

Designing Creative Portfolios, ISBN 1-56-52-113-0

Marketing Your Creative Portfolio, ISBN 0-13-097733-0

WEB140A Fundamentals of Web Design:

Students will acquire fundamental web authoring skills and design strategies through the application of XHTML incorporating Cascading Style Sheets and future trends in web programming. Once XHTML foundation skills are achieved, students will utilize a WYSIWIG editor and graphics package for application of design principles. This course mainly covers HTML, XHTML, CSS, and Web Design Concepts.

WEB140A Fundamentals of Web Design (Continued):

Certifications targeted: Brainbench Web Design Concepts
Brainbench HTML 4.0 OR Brainbench XHTML
Brainbench CSS2 (Optional)
Brainbench WWW Concepts (Optional)

College Credit: ITEC1313 Web Design I – NOC – 3 hours

OCAS Course #: 8463

Higher Ed Matrix #: IT 801 Web Design Principles

Resources Used: The Non-Designer's Web Book, Third Edition, ISBN 0-321-30337-7
HTML Comprehensive Concepts and Techniques, ISBN 0-7895-6545-5
Lynda.com HTML Essential Training
Lynda.com XHTML Essential Training
Lynda.com CSS2 Essential Training
Lynda.com Working with Color
Lynda.com Font Management
Lynda.com Typographic Principles

WEB150A Image Management Techniques:

Students will learn to create, import, and export web graphics and understand graphic file types. Students will acquire fundamental skills in image management procedures and techniques; video presentation skills; methods for print and web publishing; and certification standards and copyright basics as they develop an electronic portfolio.

Certifications targeted: Brainbench Adobe Photoshop
Brainbench Presentation Skills

College Credit: ITEC1323 Web Graphics I – NOC – 3 hours

OCAS Course #: 8464

Higher Ed Matrix #: IT 003 Digital Imaging

Resources Used: Adobe Photoshop CS/ImageReady CS for the Web Hands-On Training, ISBN 0-321-22855-3
Multimedia and Image Management, ISBN 0-538-43463-5
Multimedia and Image Management Activities, ISBN 0-538-46463-3
Lynda.com Scanning Principles
Lynda.com Photoshop CS Essential Training

WEB160A Design Tools and Electronic Marketing:

Students will become proficient in the use of premier, leading edge tools designed to create graphically rich and intuitive web sites, productions, and publications. The primary focus of this course includes layout and marketing strategies, accessibility, animation and interactivity. This course will be broken into two Northwest Tech courses: WEB170A Digital Animation and WEB180A Marketing Concepts.

Certifications targeted: Brainbench Macromedia Flash MX 2004
Brainbench Marketing Concepts

College Credit:

OCAS Course #: 8465

Higher Ed Matrix #:

Resources Used: See WEB170A Digital Animation and WEB180A Marketing Concepts courses

WEB170A Digital Animation:

Students will develop a basic understanding of designing web animations and interactive graphics.

Certifications targeted: Brainbench Macromedia Flash MX 2004

College Credit:

OCAS Course #: Part of 8465 Design Tools and Electronic Marketing Course

Higher Ed Matrix #: IT 806 Web Graphics & Animation

Resources Used: Macromedia Flash MX 2004 Hands-On Training, ISBN 0-321-20298-8
Lynda.com Flash MX 2004 Essential Training
Lynda.com Animation Principles

WEB180A Marketing Concepts:

This course covers the basic concepts and strategies of marketing including traditional print, radio, and Internet markets.

Certifications targeted: Brainbench Marketing Concepts

College Credit:

OCAS Course #: Part of 8465 Design Tools and Electronic Marketing Course

Higher Ed Matrix #: IT 810 Marketing Concepts

Resources Used: Marketing Essentials, ISBN 0078612578
Marketing Essentials, Student Activity Workbook, ISBN 0078689155
Lynda.com Search Engine Optimization
Lynda.com Building an Online Shopping Cart
Advertising on the Internet, ISBN 0-471-34404-4
101 Ways to Promote Your Website, ISBN 1-885068-57-3

WEB190A Interactive Media Capstone:

Internships, project-based instruction and teamwork will be utilized to integrate the use of interactive media products across the whole Web design or digital media project life. Students will make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize CD and/or web-based portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Certifications targeted: Adobe Photoshop CS (Optional)
Macromedia Flash MX 2004 (Optional)
HTML 4.0 (Optional)
XHTML 1.1 (Optional)
CSS2 (Optional)
Macromedia Dreamweaver MX 2004 (Optional)

College Credit: ITEC2356 Web Projects/Electives – NOC – 6 hours

OCAS Course #: 8468

Higher Ed Matrix #: IT 811 Interactive Media Capstone Project and Portfolio

Resources Used: Ultimate Fitness Website Design Simulation, ISBN 0-9721331-5-1
Designing a Digital Portfolio, ISBN 0-7357-1394-4
Marketing Your Creative Portfolio, ISBN 0-13-097733-0
Designing Creative Portfolios, ISBN 1560621139
The Breakthrough Portfolio, ISBN 140185897X

WEB200A Advanced Design Techniques:

This course prepares students to create HTML and DHTML sites using the WYSIWIG authoring capabilities of Macromedia Dreamweaver. JavaScript capabilities are also implemented with this tool. A comprehensive system for site planning, documentation, and content management is formally presented to each student. Students will enhance web design and animation skills as they master design techniques and methods that will empower them to become accomplished web designers as they bring ideas to life.

Certifications targeted: Brainbench Web Design for Accessibility
Brainbench Dreamweaver
Brainbench XHTML or Brainbench CSS2

College Credit: ITEC2316 Web Design II – NOC – 6 hours

OCAS Course #: 8466

Higher Ed Matrix #: IT 803 Web Authoring Tools II

Resources Used: Web Accessibility: Web Standards and Regulatory Compliance, ISBN 1590596382
Macromedia Dreamweaver MX 2004 Comprehensive Concepts and Techniques, ISBN 0619254939
Lynda.com Dreamweaver MX 2004 Essential Training
Lynda.com XHTML Essential Training

WEB210A Advanced Digital Animation:

This course prepares students to produce engaging, bandwidth appropriate animations for use on the Internet, CD-ROM, and corporate internet. Students will utilize action-scripting and advanced multimedia and web video production techniques to deliver dynamic, data-driven content to any audience, increasing the standards for layout, design and production.

Certifications targeted: Brainbench Macromedia Flash
Brainbench Adobe Photoshop
Brainbench Macromedia Director or Brainbench JavaScript Fundamentals

College Credit: ITEC2336 Web Animation – NOC – 6 hours

OCAS Course #: 8467

Higher Ed Matrix #: IT 809 Advanced Digital Animation

Resources Used: Macromedia Flash MX 2004 H.O.T. Beyond the Basics, ISBN 0-321-22853-7
Foundation ActionScript Animation: Making Things Move!, ISBN 1590595181
Extending Macromedia Flash MX 2004: Complete Guide and Reference to JavaScript Flash, ISBN 1590593049
Lynda.com Macromedia Flash MX 2004 Beyond the Basics
Lynda.com Macromedia ActionScript 2.0 Essential Training
Lynda.com Macromedia ActionScript 2.0 Beyond the Basics
Macromedia Director MX Design Professional, ISBN 0619111577

WEB220A Web Scripting Foundations:

This course prepares students to develop websites using HTML 4.0, FTP, CSS, JavaScript, and XML. Students will develop web-authoring skills through the application of authoring and/or scripting languages as they design security-enhanced solutions with Web Services.

Certifications targeted: Brainbench JavaScript Fundamentals
Brainbench XML Concepts
Brainbench Macromedia Flash
Brainbench CSS2

College Credit: ITEC1346 HTML and Internet Fundamentals – NOC – 6 hours

OCAS Course #: 8472

Higher Ed Matrix #: IT 805 Web Authoring Languages II

Resources Used: CSS Web Site Design Hands-On-Training, ISBN 0321293916
Beginning CSS Web Development From Novice to Professional, ISBN 1-59059-689-7
Comprehensive JavaScript Second Edition, ISBN 0-619-06334-3
XML A Beginner's Guide, ISBN 0-07-212740-6
Lynda.com CSS2 Essential Training
Lynda.com JavaScript Essential Training
Lynda.com XML Essential Training
Macromedia Flash MX 2004 H.O.T. Beyond the Basics, ISBN 0-321-22853-7
Foundation ActionScript Animation: Making Things Move!, ISBN 1590595181
Extending Macromedia Flash MX 2004: Complete Guide and Reference to JavaScript Flash, ISBN 1590593049
Lynda.com Macromedia Flash MX 2004 Beyond the Basics
Lynda.com Macromedia ActionScript 2.0 Essential Training
Lynda.com Macromedia ActionScript 2.0 Beyond the Basics

WEB230A Internet Programming:

Students will be introduced to programming technologies that will allow them to produce complex, interactive web pages.

Certifications targeted: Brainbench JavaScript Fundamentals
Brainbench XML Concepts

College Credit: ITEC2386 Internet Programming – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #:

Resources Used: Comprehensive JavaScript Second Edition, ISBN 0-619-06334-3
Lynda.com JavaScript Essential Training
XML A Beginner's Guide, ISBN 0-07-212740-6
Lynda.com XML Essential Training

WEB240A Database Essentials:

Students will be introduced to the concepts of relational database design and development using a relational database management system.

Certifications targeted: Brainbench Microsoft Access 2003 Fundamentals

College Credit: ITEC1616 Database Essentials – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #: IT 504 Database Design

Resources Used: Microsoft Access 2002 Comprehensive Concepts and Techniques, ISBN 0-7895-6282-0

Lynda.com Microsoft Access 2003 Essential Training

WEB250A Database Design & Programming:

Students will be able to develop a relational database and use SQL to manipulate data.

Certifications targeted: Brainbench Data Modeling Concepts

Brainbench SQL (ANSI) Fundamentals

Brainbench MySQL 3.23 Admin (Optional)

College Credit: ITEC2376 Structured Query Language – NOC – 6 hours

OCAS Course #: 8473

Higher Ed Matrix #: IT 505 Database Programming

Resources Used: A Guide to MySQL, ISBN 1-4188-3635-4

Lynda.com Setting Up MySQL 5 for PHP in Windows

WEB260A E-Commerce Concepts:

This course covers the use of concepts such as the following: legal issues; copyright, trademarks, and licensing; security threats and issues; electronic payment systems; purchasing and electronic data exchange; international business issues; public policy issues; ethics issues; economic issues.

Certifications targeted: Brainbench E-Commerce Concepts

College Credit: ITEC2366 E-Commerce Concepts & Implementation – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #:

Resources Used: Creating a Winning E-Business, ISBN 0-619-03386-X

Electronic Commerce, ISBN 0-7600-1179-6

WEB270A Server-Side Scripting:

Server-side scripting allows web pages to access information stored in databases and render web content using that information. Students in this course will learn how to use server-side scripting languages and databases to create dynamic interactive web pages.

Certifications targeted: Brainbench PHP5

College Credit: ITEC2226 Server-Side Scripting – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #:

Resources Used: Lynda.com Setting Up PHP 5 for Windows with Apache or IIS

Lynda.com Setting Up MySQL5 for PHP in Windows

PHP Programming with MySQL, ISBN 0-619-21687-5

Lynda.com PHP Essential Training

WEB280A Web Applications Development:

Students will learn to use high-level programming tools and advanced programming techniques to build a database-driven website.

Certifications targeted: Brainbench SQL (ANSI) Fundamentals or Brainbench MySQL 3.23 Administration

Brainbench PHP5

College Credit: ITEC2396 Web Applications Development – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #:

Resources Used: Lynda.com Setting Up PHP 5 for Windows with Apache or IIS

Lynda.com Setting Up MySQL5 for PHP in Windows

Lynda.com PHP Essential Training

PHP Programming with MySQL, ISBN 0-619-21687-5

A Guide to MySQL, ISBN 1-4188-3635-4

WEB290A E-Commerce Site Production:

Students will learn how to conduct business online and how to manage the technological issues associated with constructing an electronic commerce Web site. Students will create an e-commerce Web site for a “mock” business as well as documents used within the business and for marketing the business.

Certifications targeted: Brainbench E-Commerce Concepts
 Brainbench E-Commerce Implementation (Optional)
 Brainbench Web Development Concepts (Optional)
 College Credit: ITEC2440 Website Management & Analysis – NOC – 6 hours
 OCAS Course #: 8474
 Higher Ed Matrix #:
 Resources Used:

The Non-Designer’s Web Book, Third Edition, ISBN 0-321-30337-7
 HTML Comprehensive Concepts and Techniques, ISBN 0-7895-6545-5
 Creating a Winning E-Business, ISBN 0-619-03386-X
 Electronic Commerce, ISBN 0-7600-1179-
 PHP Programming with MySQL, ISBN 0-619-21687-5
 A Guide to MySQL, ISBN 1-4188-3635-4
 Web Accessibility: Web Standards and Regulatory Compliance, ISBN 1590596382
 Macromedia Dreamweaver MX 2004 Comprehensive Concepts and Techniques, ISBN 0619254939
 Lynda.com HTML Essential Training
 Lynda.com XHTML Essential Training
 Lynda.com CSS2 Essential Training
 Lynda.com Working with Color
 Lynda.com Font Management
 Lynda.com Typographic Principles
 Lynda.com Dreamweaver MX 2004 Essential Training

WEB300A Desktop Publishing & Graphic Design:

Students will acquire skills related to communicating through visual design with the primary emphasis of this course being desktop publishing and working with graphics.

Certifications targeted: Brainbench Adobe InDesign CS
 College Credit: ITEC1113 Layout and Design Fundamentals – NOC – 3 hours
 OCAS Course #: 8469
 Higher Ed Matrix #: IT 603 Print Design Principles
 Resources Used:

Adobe InDesign CS Design Professional, ISBN 0619188456
 Adobe InDesign CS2 Hands-On Training, ISBN 0-321-34872-9
 Lynda.com Adobe InDesign CS Essential Training
 Lynda.com Learning Acrobat 6

WEB310A Digital Editing & Production Photography:

Students will acquire skills in digital photography. Additionally students will understand standards and copyright basics.

Certifications targeted: Brainbench Adobe Photoshop CS
 College Credit: ITEC1143 Digital Photography – NOC – ? hours
 OCAS Course #: 8471
 Higher Ed Matrix #: IT 602 Digital Photography
 Resources Used:

Lynda.com Enhancing Digital Photography with Photoshop CS
 Lynda.com Russell Brown’s Photoshop CS Tips & Techniques
 Lynda.com Digital Asset Management for Photographers
 Lynda.com Photoshop CS3 for Photographers
 Lynda.com Secrets to Selling and Publishing Photography
 Lynda.com Sharing Digital Photographs: The Future of Memories
 Lynda.com Digital Photography Principles
 Photoshop Finishing Touches, ISBN 0-321-44166-4

WEB320A Graphic Design or Desktop Publishing Capstone:

Internships, project-based instruction and teamwork will be utilized to integrate the use of interactive media products for desktop publishing. Students will make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Students are required to create a print, on-line, and/or web-based portfolio displaying desktop publishing skills.

Certifications targeted: Brainbench Adobe Photoshop (Optional)
Brainbench Adobe Illustrator (Optional)
Brainbench Adobe InDesign CS (Optional)

WEB320A Graphic Design or Desktop Publishing Capstone (Continued):

College Credit: ITEC???? Graphic Design/Desktop Publishing Capstone – NOC – 3 hours

OCAS Course #:

Higher Ed Matrix #: IT 604 Desktop Publishing Capstone & Portfolio

Resources Used: Fillio's Pizza Desktop Publishing Simulation, ISBN 0-9721331-3-5
Adobe InDesign CS Design Professional, ISBN 0619188456
Adobe InDesign CS2 Hands-On Training, ISBN 0-321-34872-9
Adobe Photoshop CS/ImageReady CS for the Web Hands-On Training, ISBN 0-321-22855-3
Adobe Illustrator CS Hands-On Training, ISBN 0-321-20303-8
Lynda.com Scanning Principles
Lynda.com Adobe Illustrator CS Essential Training
Lynda.com Photoshop CS Essential Training
Lynda.com Adobe InDesign CS Essential Training
Lynda.com Learning Acrobat 6

WEB330A Advanced Web Graphics:

Students will learn to digitally manipulate photography and illustrations, compress them in appropriate formats and use in electronic layouts. Students will work with raster and vector-based software.

Certifications targeted: Brainbench Adobe Photoshop
Brainbench Adobe Illustrator

College Credit: ITEC2326 Web Graphics II – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #: IT 807 Web Graphics & Animation II

Resources Used: Adobe Illustrator CS Hands-On Training, ISBN 0-321-20303-8
Lynda.com Adobe Illustrator CS Essential Training
Adobe Photoshop CS/ImageReady CS for the Web Hands-On Training, ISBN 0-321-22855-3
Lynda.com Photoshop CS Essential Training

WEB340A Digital Video:

This course prepares students to shoot and prepare video for use on the Internet or CD-ROM. Each student receives instruction on the production of digital video in multiple formats—including capture, encoding, and streaming. Students are required to produce a web-based project that incorporates digital video and audio.

Certifications targeted:

College Credit: ITEC2346 Imaging, Virtual Reality and Digital Video – NOC – 6 hours

OCAS Course #:

Higher Ed Matrix #:

Resources Used: The Complete Guide to Digital Video, ISBN 1-90470509X
How to Do Everything with Digital Video, ISBN 0072194634
Windows MovieMaker 2 Zero to Hero, ISBN 1590591496
Lynda.com Learning Windows MovieMaker 2