

E-Business Technology Specialist

Program Code 101353

Associate Degree - Two Years

Offered at the Green Bay campus. For information: (920) 498-5444. Visit our web site at <http://www.nwtc.edu/Programs/E-Business/>
Toll-free: (800) 422-NWTC, ext. 5444.

Program Description

The E-Business Technology Specialist program prepares students to integrate web technologies to support internet-based business systems using concepts in database integration, programming, graphics, marketing, logistics, and networking.

After admission, each learner is required to complete a program planner indicating tracks selected and outlining a tentative course completion timeline. This plan will be reviewed and approved by an instructor before enrolling in courses.

Program Outcomes

- Communicate effectively.
- State and solve technical problems.
- Describe the natural world.
- Interact within society.
- Demonstrate an understanding of business models and organizational functions necessary to conduct business in a changing environment.
- Analyze accounting information and relate it to business decisions.
- Effectively apply business math models when analyzing and solving problems.
- Use project management techniques.

Graduates selecting the **Web Marketing Strategy** track will also be able to:

- Understand the business models underlying electronic commerce.
- Effectively research business and consumer markets to create electronic business marketing strategies.
- Develop an electronic commerce-marketing plan.

Graduates selecting the **Website Design** track will also be able to:

- Design and develop dynamic websites.
- Code website formatting styles.
- Develop interactive web graphics.
- Design and code web animation.
- Create functional website navigation.
- Test website usability.
- Upload and manage websites.

Graduates selecting the **Web Application Programming** track will also be able to:

- Develop, build, and configure a web application to work with an application server.
- Create a database design and effective interface to support a web application.

Employment Potential

Program graduates may work in a variety of areas of an organization depending upon their selection of course tracks. A graduate of the program will have the potential for employment as a:

Web Developer: designs, implements, and maintains intranet and internet web applications/sites.

E-Business Developer/E-Business Specialist: creates business strategies and plans for providing web-based business-to-business or business-to-consumer support and service.

Web Technical Support: develops and maintains internal system support processes and coordinates the integration of the web with other computer systems.

Web Analyst/E-Business Analyst: track and analyze key business metrics related to web activities.

Consultant: work with clients to improve the efficiency and effectiveness of the e-business infrastructure.

Some positions may require additional education and/or work experience.

Requirements for Program Entry

- Completed application.
- High school transcript or equivalent (such as an HSED or GED® Transcript).
- NWTC Academic Skills Assessment or equivalent (See Academic Skills Assessment section for details and equivalents).
- One year of high school algebra or equivalency.
- Computer familiarity and ability to use a keyboard and mouse.

Note

If a student completes a track in this program, they are eligible to receive the certificate of the same title.

Curriculum

The E-Business Technology Specialist Associate Degree is a flexible degree program consisting of a common curriculum of general education and business support courses. **The learner is required to select two tracks of occupational courses.** Learners are required to meet with a counselor and create a program plan, which will be sent to the Business and Information Technology Division. Upon graduation, a student will have completed 66 credits.

All Students Must Complete		
Catalog No.	Description	Credits
10-101-106	Accounting-for Non-Accountants	3
10-102-158	Business-Intro	3
OR		
10-104-110	Marketing Principles	3
10-104-118	E-Business Principles	3
10-135-100	E-Business Tech Internship	3
OR		
10-135-101	E-Business Tech Field Study	3
10-152-185	Website Coding	3
10-801-195	Written Communication	3
10-801-196	Oral/Interpersonal Comm	3
10-804-123	Math w Business Apps	3
OR		
10-804-133	Math & Logic	3
10-809-103	Think Critically & Creatively	3
10-809-172	Race Ethnic & Diversity	3
10-809-195	Economics	3
10-809-199	Psychology Of Human Relations	3
Credits		36

Learners select *two* of the following course tracks:

WEB MARKETING STRATEGY		
10-104-112	E-Business Implement Plan	3
10-104-115	E-Business Online Strategies	3
10-104-116	E-Business Database Mktg	3
10-104-119	E-Business Web Marketing	3
10-182-130	E-Business Logistics/Fulfill	3
OR		
10-196-188	Project Management	3
Credits for Web Marketing Strategy		15
Note: Students taking the Web Marketing Strategy track will be required to take Marketing Principles, 10-104-110.		

WEBSITE DESIGN		
10-111-150	Web Graphic Design	3
10-111-151	Website Design	3
10-111-152	Web Animation Design	3
10-111-161	Macintosh Illustration	3
10-111-172	Web Animation Programming	3
Credits for Website Design		15
Note: Students taking the Website Design track should have a working knowledge of Macintosh computers and/or graphic software.		

WEB APPLICATION PROGRAMMING		
10-150-144	Network: Operating System Fund	3
10-152-180	Web: Client Script-Javascript	3
10-152-182	Web: Server Side Script-Unix	3
OR		
10-152-181	Web: Server Side Scripting-MS	3
10-152-184	Web: Programming-SQL	3
10-154-125	Web: Database Development	3
Credits for Web Application Programming		15
Total Credits		66

Suggested Electives: Depends on track selection. Consult with a counselor for recommendations.

This program is fully eligible for financial aid.

Please Note

- Some courses have prerequisites (listed at the end of each course description, if applicable) that need to be taken prior to enrolling in those courses.
- Many courses are offered via our Flexible Learning Options (online, accelerated, ITV, video, weekend, and self-paced) and may be taken in any order as long as prerequisites are met. To find out which program courses are offered through Flexible Learning Options, go to www.nwtc.edu or consult a counselor, (920) 498-5444.
- Descriptions of courses not found on this page can be found in the back of this catalog.

Course Descriptions

These courses provide an opportunity for students to develop the knowledge, skills, and understanding required for employment in this field.

10-101-106 ACCOUNTING: INTRO FOR NON-ACCOUNTANTS

...Teaching non-accountants to read, analyze, and interpret financial information for making informed business decisions. This class de-emphasizes the use of debits, credits, journal entries and other accounting procedures.

10-102-158 BUSINESS-INTRODUCTION

...organization/management process of human resources, production, operations, marketing, distribution, and finances; risk management; ethics/legalistic management; international business; accounting, computers, and data processing.

10-104-110 MARKETING PRINCIPLES ...marketing management, market segmentation, market research, consumer behavior, product decisions and management of distribution, pricing, promotional decisions for strategy planning.

10-104-112 E-BUSINESS IMPLEMENTATION PLAN

...implementation plan for a new E-Commerce initiative or E-Commerce business. Included is analyzing the market need, product development, operational planning; including outsourcing, competitive analysis, financial need forecasting, and risk assessment.

10-104-115 E-BUSINESS ONLINE STRATEGIES

...use of essential electronic information sources (library catalogs, business databases, government resources, CD-ROM, commercial databases, World Wide Web) useful to marketing and business decision-making.

10-104-116 E-BUSINESS DATABASE MARKETING

...applications of database marketing are identified and evaluated. Create relational database structures, utilize databases to initiate marketing programs, create valuable output, and process and analyze extracted data.

10-104-118 E-BUSINESS PRINCIPLES ...how the Internet and the Web dramatically impact consumers and organizations carry out the marketing function.

10-104-119 E-BUSINESS WEB MARKETING

...traditional and electronic direct marketing strategies; methods include search engine management, direct marketing planning, database marketing, catalogs, telemarketing services, print, radio, television and direct mailing. (Prerequisite: 10-104-110, Marketing Principles)

10-111-150 WEB GRAPHIC DESIGN ...prepare graphics for the web including optimization techniques, transparent gifs, background images, image maps, slices and rollovers. Code web pages using XHTML and CSS using table and frame page layouts. (Prerequisites: 10-152-185, Website Coding; 10-111-103, Graphic Workstations)

10-111-151 WEBSITE DESIGN ...(Adobe Dreamweaver) use standards based XHTML and CSS to design, develop and deploy websites; including: browser compatibility, FTP, forms, multi-media, RSS, and site management. (Prerequisites: 10-111-103, Graphic Workstations and 10-152-185, Website Coding)

10-111-152 WEB ANIMATION DESIGN

...(Macromedia Flash) vector animation, create, import source material, incorporate into flash movies, use Stage and Timeline, motion, shape-tweening, add sound to buttons, use Action Script, and test flash. (Prerequisite: 10-111-161, Macintosh Illustration)

10-111-161 MACINTOSH ILLUSTRATION ...create and paint basic shapes, draw, transform objects, work with type, blend shapes and colors, work with layers, special effects, and color separations. An introduction to manipulating vector based images. (Corequisite: 10-111-103, Graphic Workstations)

10-111-172 WEB ANIMATION PROGRAMMING

...apply object-orientated programming concepts in ActionScript for motion, tweening, easing, coloring and shape drawing. Code scripts for time-based animations, event-based animations and dynamic animations. (Prerequisite: 10-111-152, Web Animation Design)

10-135-100 E-BUSINESS TECHNOLOGY

INTERNSHIP ...individual on-the-job training: consulting with users in design, development, and implementation of web technologies and internet-based business systems. Course should be taken during the last semester.

10-135-101 E-BUSINESS TECHNOLOGY FIELD STUDY ...alternative to the internship: in-depth study of a business(es) involved in design, development, and implementation of web technologies and internet-based business systems. Course should be taken during the last semester.

10-150-144 NETWORK: OPERATING SYSTEM FUNDAMENTALS ...installation of Windows client, Windows Server and Linux Server operating systems. Basic networking topologies and protocol fundamentals. Application installation including Simple Mail Transport Protocol, File Transfer Protocol, and Web server technologies.

10-152-180 WEB: CLIENT SIDE SCRIPTING-JAVASCRIPT ...integrate Javascript into interactive HTML pages, create user-defined functions, complete form validation, use objects within the Document Object Model, manipulate cookies, create image rollovers, debug code, and test browser compatibility. (Prerequisite: 10-152-185, Website Coding)

10-152-181 WEB: SERVER SIDE SCRIPTING-MICROSOFT ...operating system installation, update, configuration for the web environment including: IIS configuration, Active Server Page (ASP) configuration, basic and intermediate HTML, basic/intermediate ASP, manipulating ODBC compliant databases using ASP. (Prerequisites: 10-152-185, Website Coding, 10-150-144, Network: Operating Systems Fundamentals; 10-152-184, Web: Programming-SQL)

10-152-182 WEB: SERVER SIDE SCRIPTING-UNIX ...operating system installation, update, configuration for the web environment including: Apache configuration, PERL configuration, basic and intermediate HTML, basic and intermediate PERL, and manipulating ODBC compliant databases using PERL. (Prerequisites: 10-152-185, Website Coding; 10-150-144, Network Operating Systems Fundamentals; 10-152-184, Web: Programming-SQL)

10-152-184 WEB: PROGRAMMING-SQL ...write queries in a relational database: creating tables, setting primary/foreign keys, populating tables, manipulating data and reporting. Explore join types, stored procedures, functions, and database administration SQL statements. (Prerequisite: 10-154-125, Web: Database Development)

10-152-185 WEBSITE CODING ...write code for functionality and design of web page text, hyperlinks, images, tables, and forms using (X)HTML and CSS. Apply and validate coding standards. Test browser function and user accessibility.

10-154-125 WEB: DATABASE DEVELOPMENT ...web database uses, analyzing information requirements, file organizations, data models, entity relationships, normalizing data, database management systems, development environments, web connectivity, creating tables, writing queries and file maintenance using SQL.

10-182-130 E-BUSINESS LOGISTICS/FULFILLMENT ...e-commerce, business-to-business e-commerce, consumer e-commerce, e-commerce distribution, e-procurement, e-commerce connection, legal and ethical issues, and e-commerce logistics applications.

10-196-188 PROJECT MANAGEMENT ...the role of project management, developing a project proposal, use of relevant software, working with project teams, sequencing tasks, charting progress, dealing with variations, budgets and resources, implementation, and assessment.