

Northwest Arkansas Community College
Business and Computer Information Systems Division

Discipline Code

NTWK

Course Number

2243

Course Title

Secure Electronic Commerce

Catalog Description

This course will give students an introduction to implementing a secure e-commerce site with exposure to marketing, entrepreneurship, advertising, business strategy, fulfillment, supply chains, software development, risk management, security threats and payment gateways. The course includes an examination of e-commerce in altering the structure of entire industries and how it affects business processes including electronic transactions, supply chains, decision-making and organizational performance. Students will analyze e-commerce strategies, solutions, and business models to determine the best model to meet client needs. A semester long group project will allow students to develop an e-commerce business strategy; as well as design, secure, implement, and test an e-commerce website using client and business specifications. This course will require additional outside lab time.

Prerequisites

NTWK 2014 Network & Information Systems (CCNA1),
Or Instructor Consent

Credit Hours

3 credit hours

Contact hours

45 lecture/lab contact hours

Load hours

3 load hours

Semesters Offered

Spring, On Demand

ACTS Equivalent

N/A

Grade Mode

A-F

Outcomes

Students will:

- Demonstrate an understanding of the impact of e-commerce on business models and strategy
- Explain the different types of e-commerce strategies and how they can be used to create strategic, competitive advantage for a business.
- Describe technology infrastructure used for e-commerce.
- Prepare an e-commerce business plan.
- Prepare an e-commerce risk assessment.
- Apply information security technologies
- Apply internet security techniques
- Use certificates, policies and procedures to secure the e-commerce application.
- Use public key cryptography and the public key infrastructure
- Use electronic commerce models and business principles to design and implement web-based commerce
- Evaluate, update and maintain security architectures.
- Apply best practice standards in determination of digital signature and certificates selection and application
- Apply security and privacy principles in order to provide a secure internet commerce environment
- Recognize legal, global, privacy, security, and risk management issues in ecommerce.
- Design, create, update, and maintain e-commerce architecture.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students gain greater awareness of cultural perspectives.
- Students can write clear, coherent, well-organized documents, substantially free of errors.
- Students develop effective oral communication skills.
- Students can use computers proficiently.
- Students can employ a variety of sources to locate, evaluate, and use Information.

Standard Practices

Topics list

- E-Commerce overview and evolution of ecommerce technology
- E-Commerce business models and concepts
- E-Commerce infrastructure (web hosting, DNS, internet connections)
- E-Commerce presence
- E-Commerce security considerations for businesses
- E-Commerce payment systems
- E-Commerce marketing and advertising
- Ethical, social and political issues in e-commerce
- Online content and media
- Social networking
- Mobile communications and mobile commerce
- Supply chain management
- Legal issues
- Privacy
- PCI-DSS compliance
- Common website attacks

- Common security and privacy risks for web applications
- Public Key Infrastructure
- Security devices
- Certificates, SSL, HTTPS, SSH
- Secure transactions
- Risks, threats and vulnerabilities
- Mitigating website risks, threats, and vulnerabilities
- Securing web applications
- Securing mobile, personal, and business communications
- Testing and quality assurance
- Vulnerability and security assessment

Learning activities

- A collaborative group project will design and implement an e-commerce solution for a client. A mid-term project update and a final business presentation and application demo will be given for shareholders. Self, peer, and client evaluations will provide individual project feedback. A professional business strategy paper and risk assessment will accompany the e-commerce application.
- This course requires some in class, hands-on work and also additional hands-on work in a virtual or on-campus computer lab.

Assessments

- Written assignments
- Discussions
- Hands-on labs
- Projects
- Quizzes
- Exams

Grading guidelines

- A = 90-100
- B = 80-89
- C = 70-79
- D = 60-69
- F = 59 & below

Revision Date

May 20, 2020