Course Description
This course examines the concepts, technology, and applications of electronic commerce, or e-commerce. Since users can engage in e-commerce from a fixed device (e.g., PC) or from a mobile device (e.g., mobile phone) we will examine both traditional fixed e-commerce and mobile e-commerce or m-commerce. The course begins by setting the context for e-commerce within the domain of information systems. Then the course examines e-commerce in detail. It presents general concepts about e-commerce and demonstrates them with a case study. It explains characteristics and examples of B2C e-commerce, and examines the rising role of social commerce. It discusses B2B e-commerce and contrasts it with B2C e-commerce. It examines security and payment in e-commerce. It explains the technological infrastructure needed to support an e-commerce system and describes how e-commerce systems are built. Next the course examines m-commerce in detail. It presents m-commerce concepts and discusses the technology needed for m-commerce. It examines the range of m-commerce applications and discusses mobile security and payment. The course concludes with a presentation on the future of e-commerce.

Required Background
Students should have a basic understanding of information systems, the Internet, and the Web.

Learning Outcomes
Upon completing this course the student will be able to:
1. Explain the characteristics and functions of electronic commerce including mobile commerce.
2. Describe the process of developing electronic commerce sites and mobile commerce applications.
3. Implement an electronic commerce site using open source software.
4. Explain fundamental characteristics of electronic markets.
6. Discuss the impact of social media on e-commerce.
7. Describe security and payment in electronic commerce including mobile commerce.
8. Describe the technology used in mobile commerce.
9. List common applications in mobile commerce.
10. Speculate on the future of electronic commerce.

Teaching Methods
This course will be taught using the American teaching style that combines lecture and discussion. Students are encouraged to ask questions and present relevant ideas during
lecture. The professor will also ask questions of students during lecture. Students should actively engage in class discussion on course topics. Student attendance at all classes and participation during class is required.

**Course Materials**
All PowerPoint slides and other course materials will be posted online.

**Suggested Reading**

**Course Requirements**

**Attendance and class participation**
Students are expected to attend all classes and participate actively in class discussions.

**Team project**
Students are to work in teams of five to plan an e-commerce site for a real or hypothetical business and implement the site using PrestaShop. Students are to present their plan and implementation in an oral presentation using PowerPoint and in a written summary. The specific requirements for the project are given at the end of this syllabus.

**Examination**
Students must pass an exam at the end of the course.

**Grading Policy**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral presentation and written summary of team project</td>
<td>33.3%</td>
</tr>
<tr>
<td>Exam</td>
<td>66.7%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Contact Information**
Students may contact me at any time, even after I return to the United States. You can also meet with me when I am at the University. If I am free I will meet with you without an appointment. Otherwise you should request an appointment.

Office: L 15, 1-6, 7th floor, room 710
Email: RNick@sfsu.edu
Skype: robsfsu

**Course Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
</table>
| Day 1 (1.5 hours) | Course introduction  
Review: Information systems concepts |
| Day 2 (3 hours) | E-commerce systems: Characteristics and functions  
E-commerce systems: Case study  
E-commerce site development |
| Day 3 (3 hours) | Using PrestaShop  
Electronic Markets  
B2C e-commerce |
| Day 4 (3 hours) | B2C e-commerce (continued)  
| B2B e-commerce  
| E-commerce security and payment |
| Day 5 (3 hours) | E-commerce security and payment (continued)  
| Supply chain management, order fulfillment, and logistics in e-commerce  
| M-commerce systems: Characteristics and functions  
| M-commerce technology |
| Day 6 (3 hours) | M-commerce technology (continued)  
| M-commerce applications  
| M-commerce trust, security, and payment |
| Day 7 (3 hours) | The future of wireless and mobility  
| Review for exam  
| Student presentations |
| Day 8 (1 hour) | Exam |

**Team Project Requirements**

Students are to work in teams of five. Each team is required to

- Select a business, which can be a real business or a fictitious one but it must be a realistic business, for which e-commerce would provide an opportunity to sell online the business’s products or services.

- Develop an e-commerce plan for that business. The plan should include the five sections listed in the presentation outline below. If, because of class size, a team has only four members, that team only needs to complete the first four sections in the list below.

- Implement the e-commerce plan in a web-based, transactional e-commerce site using PrestaShop (but without payment capability). The site must sell a product or service. A purely informational website is not acceptable.

- Give an oral presentation (in English) using PowerPoint slides (in English) on the last day of class. The oral presentation must be organized into the five sections below. Each section must be presented by a different student. Each student is limited to a maximum of 10 minutes with a maximum of 6 PowerPoint slides plus 1 title slide with the title of the section and the name of the student presenting that section. Each student is to prepare a written summary (in English) of his/her oral presentation (maximum 2 pages) and give a printed copy of this summary and a printed copy of the PowerPoint slides to the professor before the presentation.

**Sections in oral presentation:**

1. The business: Describe the business including the following:
   a. Type of business
   b. Products or services: What are the products or services of the business? Why are these products or services appropriate for e-commerce?
   c. Customers: Who are the customers? Why will these customers use e-commerce for the products or services?
   d. Processes: How does the business provide its products or services to its customers? In other words, what are the business processes, or how does the business function or operate? How do these processes relate to the e-commerce system? Which processes are part of the e-commerce system and which are outside the system?
2. Impact of e-commerce: Explain why e-commerce is needed by or appropriate for the business. What role will e-commerce play in the business? What type of e-commerce will the business engage in (e.g., B2C, B2B, pure play, click and mortar, etc.) and why? How will e-commerce impact the business’s operations, management, and/or competitive advantage?

3. E-commerce business and revenue models: Name and describe the e-commerce business model(s) used by the business. Explain why this model or models is appropriate for e-commerce for this business. Name and describe the revenue model(s) used by the business. Explain why this model or models is appropriate for e-commerce for this business?

4. Payment system and security: Describe the payment system that will be used by users to pay for the products or services they purchase. Explain why this payment system is appropriate for e-commerce for this business? (Do not implement the payment system.) Explain how security will be handled in the system. Explain how this system will help create trust in its customers.

5. System functions: Describe how your e-commerce system will function from a user’s perspective. Refer to the eight function model discussed in lecture. Do not demonstrate your site.

- The final system implementation in PrestaShop does not have to be completed by the time of the oral presentation. Teams will have two more weeks to complete the system implementation. When it is completed, the team must send the url to the professor along with the PowerPoint slides for each section and the summary of each student’s presentation. Final grades on the oral presentations will not be determined until the url is received.

- Note:
  1. Even though the sections of the report are presented by and written by different students, they must be coordinated. Students will lose credit if their section of the oral presentation and/or report does not fit with the other sections.
  2. Each student’s report must relate to the final implementation in PrestaShop. Students will lose credit if their section in the report does not fit with the implemented system.
  3. Team members must coordinate their efforts and work together on the project.

### Project schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 2 of class</td>
<td>Students organize teams and begin to develop project ideas</td>
</tr>
<tr>
<td>Day 3 of class</td>
<td>Students send email to professor with names of team members and the project idea (type of business, product or service sold through e-commerce site)</td>
</tr>
<tr>
<td>Last day of class</td>
<td>Oral presentations of project (team order determined by volunteers or random draw)</td>
</tr>
<tr>
<td>Two weeks after end of class</td>
<td>Deadline for the professor to receive by email the url of the site, and the PowerPoint slides and presentation summaries.</td>
</tr>
</tbody>
</table>