

## Course Syllabus

### Course Description

Provides a comprehensive overview of the management of information systems and the combination of hardware, software, and people vital to the successful business operation. The strategic role of information systems is examined, as well as the characteristics of computer systems, software applications, programming languages, and relational databases.

### uCertify

This course will utilize a tool called uCertify, which will provide you with readings and other activities needed to complete the course. Please refer to the uCertify link in the Course Content menu in Blackboard to access this information.

### Course Textbook(s)

No physical textbook is required; resources are integrated within the course.

### Additional Required Course Material(s)

See each Unit Study Guide for additional required course material(s).

### uCertify Reference Notification

You will be able to find your course textbook by accessing uCertify, which can be done by clicking the *uCertify* link in the Course Content menu on the left-hand side of the page. Please be aware that there will not be a hard copy of this textbook. Please use the following reference for your course textbook:

Kroenke, D. (2018). *Using MIS* (10th ed.). New York, NY: Pearson.

### Course Learning Outcomes

Upon completion of this course, students should be able to:

1. Analyze the key differences between data, information, information technology (IT), and information systems (IS).
2. Explain the similarities and differences of personal knowledge management tools.
3. Examine the importance of mobile systems with regard to securing information and knowledge.
4. Explain how information systems can be used to gain and sustain competitive advantage.
5. Evaluate the approaches to developing organizational knowledge management strategies.
6. Assess the key issues involved in managing the components of IT infrastructure.
7. Summarize the requirements for successful collaboration in information systems management.
8. Evaluate major types of hardware and software used by organizations.

### Prerequisite(s)

No prerequisite courses are required for enrollment in this course.

### Credits

Upon completion of this course, the students will earn 3 hours of college credit.

## CSU Online Library

The CSU Online Library is available to support your courses and programs. The online library includes databases, journals, e-books, and research guides. These resources are always accessible and can be reached through the library web page. To access the library, log into the myCSU Student Portal, and click on “CSU Online Library.” You can also access the CSU Online Library from the “My Library” button on the course menu for each course in Blackboard.

The CSU Online Library offers several reference services. E-mail ([library@columbiasouthern.edu](mailto:library@columbiasouthern.edu)) and telephone (1.877.268.8046) assistance is available Monday – Thursday from 8 a.m. to 5 p.m. and Friday from 8 a.m. to 3 p.m. The library’s chat reference service, *Ask a Librarian*, is available 24/7; look for the chat box on the online library page.

Librarians can help you develop your research plan or assist you in finding relevant, appropriate, and timely information. Reference requests can include customized keyword search strategies, links to articles, database help, and other services.

## Unit Assignments

### Unit I Journal

Suppose you are the information technology (IT) manager for an IT company. You receive a report that contains a list of computer equipment stored in the company warehouse. You notice that the list also includes items that you know are not stored in the warehouse. Would you consider this list as good information? Why, or why not? Give some examples of at least three items on this list that you consider to be good information and at least three items on this list that would not be good information. Explain your reasoning, and include a discussion about why good information is important in management information systems (MIS).

Your journal entry must be at least 200 words. No references or citations are necessary.

### Unit I Scholarly Activity

In this unit, you have learned about management information systems (MIS) and the importance of it. For this assignment, compose a paper that discusses the key differences between data, information, information technology (IT), and information systems (IS). Your paper should address the components listed below.

- Define what is meant by information.
- Define what is meant by data.
- Create two matrices (one for data and one for information) that illustrate the key differences between information and data, place the matrices into your paper, and briefly discuss the differences in one or two paragraphs. Each matrix should contain characteristics and/or facts about the subjects (data and information) that show how they are different.
- Define IT.
- Define IS.
- Using the five-component model as an example, discuss some differences between IT and IS.

If you are using Microsoft Word, you can develop a matrix using this program. For an example of how to create a matrix using Microsoft Word, see the Microsoft.com explanation by clicking the link below.

Microsoft. (n.d.). Create a matrix. Retrieved from <https://support.office.com/en-us/article/Create-a-matrix-0E74423D-2E28-4DEB-9223-A30C2312CC22>

You may use another computer software program that you are familiar with to create the matrices. However, you must submit your assignment in a Microsoft Word document, and the matrices should be included in the body of your paper.

Your paper must be a minimum of two pages in length (not counting the title and reference pages), and you must use at least two resources as references. Any information from these resources must be cited and referenced in APA format.

### Unit II Journal

Refer back to the “2027?” section on page 69 (Q1-Q7) of the textbook in uCertify, which provides an interesting discussion about the future of collaboration. After reading about the future of collaboration systems, how do you envision collaboration in your industry in the year 2027?

Describe the industry you currently work in or plan to work in along with a discussion of your vision of what collaboration will be like for your industry in the year 2027. Be sure to discuss some of the advantages and disadvantages to your vision of collaboration in 2027.

Your journal entry must be at least 200 words. No references or citations are necessary.

### Unit II PowerPoint Presentation

In this assignment, you will create a presentation for your organization to explain how successful collaboration can improve success and provide competitive advantages.

Scenario: Your organization has used a variety of collaboration systems developed by some project managers. Some of

these systems were successful while others were not. Your organization has one unique challenge—many of your employees are staffed at other locations or work from home (telework). You would like to standardize the collaboration process to improve team communication for all company projects. In your presentation, you should include the elements listed below.

- Explain why collaboration information systems (IS) are important from the organization's perspective.
- Discuss how collaboration tools can improve team communication.
- Identify three tools that will be used for synchronous communications and three tools that will be used for asynchronous communications. Be sure to explain why you made these choices.
- Describe how project files, such as Microsoft (MS) Word, MS Excel, MS Project, and MS Visio, will be shared with team members. Be sure to explain the rationale behind your choice.
- Explain how the task list for managing tasks will be shared with team members. Be sure to explain the rationale behind your choice.
- Discuss how this new collaboration IS could provide competitive advantages for your organization.

Your presentation should be a minimum of six slides in length (not counting the title and reference slides). Use of images, graphics, and diagrams is encouraged.

You can use an industry of your choosing or examples from your personal or professional experiences in developing this assignment. You can also use the resources in the Unit II Suggested Reading section to assist you with this assignment.

Be sure to follow the 7x7 rule (i.e., there should be no more than 7 words per line and no more than 7 lines per slide). You are required to use speaker notes to discuss the bullet points on your slides.

You must use at least two academic resources to support your presentation, and you must cite (in APA format) any information on your slides or in your speaker notes that came from these sources.

### **Unit III Journal**

In this unit, you learned about the Internet of Things (IoT) and smart devices. Think about how these concepts apply to your life, and describe how you use devices such as these in your day-to-day life.

Your journal entry must be at least 200 words. No references or citations are necessary.

### **Unit III PowerPoint Presentation**

For decades, relational databases remained essentially unchanged; data was segmented into specific chunks for columns, slots, and repositories, also called structured data. However, in this Internet of Things (IoT) era, databases need to be reengineered because the very nature of data has changed. Today's databases need to be developed with the needs of IoT in mind and have the ability to perform real-time processing to manage workloads that are dynamic. For example, relational databases should be able to work with real-time data streaming and big data (an example was presented in the Unit III Lesson).

Scenario: Falcon Security wants their customers to be able to view security video footage in real-time and provide customers with the ability to query video footage for viewing. Choosing a database solution such as MongoDB would allow Falcon Security to store customer video footage in the same database as the metadata.

To do this, Falcon Security needs a way to manage the demands of real-time data streaming for real-time analytics. Conduct some research for a NoSQL database application, such as MongoDB or Cassandra, that could meet this need. How would switching to a real-time database solution help Falcon Security remain competitive? Create a PowerPoint presentation that includes the components listed below.

- Provide a brief introduction to IoT.
- Present the argument to the Falcon Security CEO that switching to a more dynamic database structure (NoSQL real-time database) will meet the demands of IoT.
- Introduce some features of the database you chose, whether it is MongoDB, Cassandra, or another database.
- Describe how switching to a more dynamic database will give Falcon Security a competitive advantage.

Your presentation must be a minimum of six slides in length (not counting the title and reference slides), and you must use at least two academic resources. Any information from a resource used must be cited and referenced in APA format.

### **Unit IV Journal**

When you started your small business, you managed all business processes on your own. Now, your business is expanding and you have hired employees to help. Would you consider implementing an enterprise resource planning (ERP) system, or would you continue to use applications, such as Microsoft Office (e.g., Word, Excel, Access), to manage your business processes? Be sure to explain the reasons behind your choice.

Your journal entry must be at least 200 words. No references or citations are necessary.

### **Unit IV Essay**

Scenario: A company called Colony Nursery and Landscaping opened a new store located a few hundred miles away from its original location. The company wants to implement an award system that awards their customers with points whenever customers make a purchase, but the two stores are not able to share information. Colony Nursery and Landscaping will need to implement an enterprise resource planning (ERP) system that will solve the information silo problem by collecting and making this user data available. Colony Nursery and Landscaping is hoping that by providing customers with this award

system, they will be able to maintain competitive advantage. Colony Nursery and Landscaping cannot afford to purchase, develop, or maintain this system on-site, so they are investigating cloud solutions.

In addition, for many organizations, Colony Nursery and Landscaping included, information silos make it difficult to tap into needed information. Discuss whether or not the problem of information silos can be solved by using the cloud. Some organizations do not have the resources to construct or maintain their computer infrastructure, so they utilize cloud services instead to reduce costs and improve scalability. In this assignment, you will discuss whether or not the cloud offers solutions for Colony Nursery and Landscaping and identify an application that the ERP system could provide. Compose an essay that includes the elements listed below.

- Define what an information silo is.
- Explain why information silos are a problem for organizations.
- Discuss why organizations are moving to the cloud.
- Determine whether or not using cloud services, such as a cloud-based host for data storage, would solve the ERP information silo problem at Colony Nursery and Landscaping.
- Explain how using the ERP system and awards program would provide a competitive advantage for Colony Nursery and Landscaping.
- Discuss why the implementation of an ERP system might require business process reengineering for Colony Nursery and Landscaping. Be sure to explain the business processes that will be affected (e.g., the customer awards system). Use diagrams or tables as needed, but this is not required.

Your essay must be a minimum of two pages in length (not counting the title and reference pages), and it must be formatted in APA style. You should include an introduction section that gives background and context to your reader. You must use at least two scholarly resources as references. Any information from these resources must be cited and referenced in APA format.

### **Unit V Journal**

Recall the social media information systems scenario about augmented reality at the beginning of Chapter 8. Based on what you have learned in this unit, how would you respond if you were the head of marketing at ARES when Cassie and Raj presented their ideas about a mixed-reality environment? What do you think will happen if the company does not shift its current advertising ideology to embrace virtual environments? Be sure to use examples to support your arguments.

Your journal entry must be at least 200 words. No references or citations are necessary.

### **Unit V Scholarly Activity**

Choose one of the scenarios below (A or B) to complete the assignment.

#### Scenario A

You are the business owner of a local small engine repair shop, and you have been thinking about implementing a knowledge management system for your customer service technicians. You are thinking about this because there are times when some of your technicians know how to fix certain engine problems and others do not. Providing a central knowledge repository could help share troubleshooting and repair knowledge among your technicians.

#### Scenario B

You are the business owner of a local cleaning service, and you have been thinking about implementing a knowledge management system for your cleaning technicians, especially for those who troubleshoot and solve cleaning problems, such as removing certain carpet and water stains, addressing mold, and selecting the proper tools and products to use for other types of cleaning issues. You are thinking about this because there are times when some of your cleaning technicians know how to properly clean carpets and others do not. Providing a central knowledge repository could help share cleaning knowledge among your cleaning technicians.

After you chose your scenario (A or B), compose a paper that addresses the elements listed below.

- Explain the role of knowledge management systems.
- Explain what is meant by expert systems.
- Explain what is meant by content management systems.
- Discuss how the business in the selected scenario could benefit from an expert system and a content management system, and provide two examples for each type of system.
- Discuss how the business in the selected scenario could benefit from business intelligence, and provide two examples of these benefits.
- Discuss how the business in the selected scenario can use social media to not only obtain information and knowledge but to share it as well, and provide two examples of how the business might use social media information systems.

Your paper must be at least two pages in length (not counting the title and reference pages), and you must also use at least two scholarly sources, one of which must come from the CSU Online Library. Any information from a source must be cited and referenced in APA format, and your paper must be formatted in accordance to APA guidelines.

### **Unit VI Journal**

In this unit, you learned about safeguards against security threats. Do you use any of these in your personal life or at work? If so, explain how these safeguards help to ensure information security in your home or at work. If not, do you feel like the systems are adequately protected? Should any safeguards be put into place?

Your journal entry must be at least 200 words. No references or citations are necessary.

## **Unit VI PowerPoint Presentation**

Recently, a terminated employee used his mobile device to log in to the company network and steal sensitive data. As the manager of the information technology (IT) security department, you were asked by your boss to present a summary of what the organization should do to prevent this from happening again. Create a PowerPoint presentation of your summary. In your PowerPoint presentation, you should include the components listed below.

- Explain the goal of information security in relation to mobile devices.
- Identify the three sources of threats, provide a summary of each, and provide at least one example of each.
- Explain technical safeguards, and discuss which technical safeguard(s) should be used for mobile devices.
- Explain data safeguards, and discuss which data safeguard(s) should be used in this type of scenario.
- Explain human safeguards, and discuss which human safeguard(s) should be implemented.
- Discuss why the organization needs an incident response plan to secure information and knowledge.

Your presentation must be a minimum of six slides in length, not counting the title and reference slides. Be sure that any graphics used are appropriate and support the content of your presentation. You must use at least two references in your presentation, and they should be cited and referenced in APA format. Please cite all sources used.

## **Unit VII Journal**

Recall the Augmented Reality Exercise System (ARES) scenario discussed at the beginning of Chapter 11 of the textbook in uCertify. As the manager of this project, would you approve the decision to use an offshore contractor to outsource the development of AR headset applications? Why would you make this decision?

Your journal entry must be at least 200 words. No references or citations are necessary.

## **Unit VII Case Study**

As a manager of an organization, you will often need to find ways to cut costs. One way to cut costs is to outsource by hiring another organization to perform the service. Consider the scenario below.

As a manager for the public outreach department, you realize that the current system for managing outreach issues is outdated. You would like to have a new outreach system developed using the Cloudera platform to help manage big data. However, no one in the organization has the expertise. You will have to outsource the project to save on costs and avoid management problems. Two companies have sent in a bid—one from Vancouver, Canada, and one from Mumbai, India. The bid from India was slightly lower than the bid from Canada. Compose a response that includes the elements listed below.

- Define what is meant by outsourcing.
- Explain how Peter Drucker's statement (covered in the textbook in uCertify) about how one company's back room is another company's front room pertains to outsourcing. Use an example.
- Summarize the management advantages, cost reduction, and risk reduction of outsourcing.
- Summarize the outsourcing risks concerning control, long-term costs, and exit strategy.
- Discuss which company you would outsource to and why. Does distance matter?

Your case study must be at least two pages in length (not counting the title and reference pages), and you must use at least two references as a source for your essay. See the Suggested Reading section for some sample articles on outsourcing. Be sure to cite all sources used in APA format, and format your essay in APA style.

## **Unit VIII Journal**

Identify a skill or knowledge that you learned in this course, and explain how you can apply it to increase success in your career in a real-world scenario.

Your journal entry must be at least 200 words. No references or citations are necessary.

## **Unit VIII Essay**

In this final assignment, you will develop a paper that reviews some of the main topics covered in the course. Compose an essay to address the elements listed below.

- Identify the components of an information system (IS) using the five-component framework, and provide a brief summary of each.
- Explain Porter's five forces model.
- Management IS (MIS) incorporate software and hardware technologies to provide useful information for decision-making. Explain each of the following IS, and use at least one example in each to support your discussion:
  - a collaboration information system,
  - a database management system,
  - a content management system,
  - a knowledge management/expert system,
  - a customer relationship management system,
  - an enterprise resource planning system,
  - a social media IS,
  - a business intelligence/decision support system, and

- an enterprise IS.
- Identify and discuss one technical and one human safeguard to protect against IS security threats.
- There are several processes that can be used to develop IS and applications such as systems development life cycle (SDLC) and scrum (agile development). Provide a brief description of SDLC and scrum, and then discuss at least one similarity and one difference between SDLC and scrum
- Sum up your paper by discussing the importance of MIS.

Your paper must be at least three pages in length (not counting the title and reference pages), and you must use at least two resources. Be sure to cite all sources used in APA format, and format your essay in APA style.

## APA Guidelines

The application of the APA writing style shall be practical, functional, and appropriate to each academic level, with the primary purpose being the documentation (citation) of sources. CSU requires that students use APA style for certain papers and projects. Students should always carefully read and follow assignment directions and review the associated grading rubric when available. Students can find *The CSU Citation Guide* by clicking [here](#). This document includes examples and sample papers and provides information on how to contact the CSU Writing Center.

## Grading Rubrics

This course utilizes analytic grading rubrics as tools for your professor in assigning grades for all learning activities. Each rubric serves as a guide that communicates the expectations of the learning activity and describes the criteria for each level of achievement. In addition, a rubric is a reference tool that lists evaluation criteria and can help you organize your efforts to meet the requirements of that learning activity. It is imperative for you to familiarize yourself with these rubrics because these are the primary tools your professor uses for assessing learning activities.

Rubric categories include (1) Journal, (2) Assessment (Written Response), and (3) Assignment. However, it is possible that not all of the listed rubric types will be used in a single course (e.g., some courses may not have Assessments).

The Journal rubric can be found within Unit I's Journal submission instructions.

The Assessment (Written Response) rubric can be found embedded in a link within the directions for each Unit Assessment. However, these rubrics will only be used when written-response questions appear within the Assessment.

Each Assignment type (e.g., article critique, case study, research paper) will have its own rubric. The Assignment rubrics are built into Blackboard, allowing students to review them prior to beginning the Assignment and again once the Assignment has been scored. This rubric can be accessed via the Assignment link located within the unit where it is to be submitted. Students may also access the rubric through the course menu by selecting "Tools" and then "My Grades."

**Again, it is vitally important for you to become familiar with these rubrics because their application to your Journals, Assessments, and Assignments is the method by which your instructor assigns all grades.**

## Communication Forums

These are nongraded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

**Once you have completed Unit VII, you MUST unsubscribe from the forum; otherwise, you will continue to receive e-mail updates from the forum. You will not be able to unsubscribe after your course end date.**

[Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.](#)

### Ask the Professor

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to e-mail your professor. Responses to your post will be addressed or e-mailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

### Student Break Room

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to

share assessment answers.

## Schedule/Grading

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.

Unit I	Why MIS?	[ Weight: 12% ]
Read/View:	<ul style="list-style-type: none"><li>• Unit I Study Guide</li><li>• Chapter 1: The Importance of MIS</li></ul>	
Submit:	<ul style="list-style-type: none"><li>• Unit I Journal</li><li>• Unit I Scholarly Activity</li></ul>	2% 10%
Unit II	Collaboration Information Systems and Strategy and Information Systems	[ Weight: 12% ]
Read/View:	<ul style="list-style-type: none"><li>• Unit II Study Guide</li><li>• Chapter 2: Collaboration Information Systems</li><li>• Chapter 3: Strategy and Information Systems, Q3-1 – Q3-8</li></ul>	
Submit:	<ul style="list-style-type: none"><li>• Unit II Journal</li><li>• Unit II PowerPoint Presentation</li></ul>	2% 10%
Unit III	Hardware, Software, and Mobile Systems and Database Processing	[ Weight: 12% ]
Read/View:	<ul style="list-style-type: none"><li>• Unit III Study Guide</li><li>• Chapter 4: Hardware, Software, and Mobile Systems, Q4-1 - Q4-7</li><li>• Chapter 5: Database Processing, Q5-1 - Q5-7</li></ul>	
Submit:	<ul style="list-style-type: none"><li>• Unit III Journal</li><li>• Unit III PowerPoint Presentation</li></ul>	2% 10%
Unit IV	The Cloud, Processes, Organizations, and Information Systems	[ Weight: 13% ]
Read/View:	<ul style="list-style-type: none"><li>• Unit IV Study Guide</li><li>• Chapter 6: The Cloud, Q6-1 - Q6-7</li><li>• Chapter 7: Processes, Organizations, and Information Systems, Q7-1 - Q7-7</li></ul>	
Submit:	<ul style="list-style-type: none"><li>• Unit IV Journal</li><li>• Unit IV Essay</li></ul>	2% 11%
Unit V	Social Media Information Systems and Business Intelligence Systems	[ Weight: 12% ]
Read/View:	<ul style="list-style-type: none"><li>• Unit V Study Guide</li><li>• Chapter 8: Social Media Information Systems, Q8-1 – Q8-7</li><li>• Chapter 9: Business Intelligence Systems, Q9-1 - Q9-8</li></ul>	
Submit:	<ul style="list-style-type: none"><li>• Unit V Journal</li><li>• Unit V Scholarly Activity</li></ul>	2% 10%

<b>Unit VI</b>	<b>Information Systems Security</b>	<b>[ Weight: 12% ]</b>
<b>Read/View:</b>	<ul style="list-style-type: none"> <li>• Unit VI Study Guide</li> <li>• Chapter 10: Information Systems Security</li> </ul>	
<b>Submit:</b>	<ul style="list-style-type: none"> <li>• Unit VI Journal</li> <li>• Unit VI PowerPoint Presentation</li> </ul>	2% 10%

<b>Unit VII</b>	<b>Information Systems Management</b>	<b>[ Weight: 13% ]</b>
<b>Read/View:</b>	<ul style="list-style-type: none"> <li>• Unit VII Study Guide</li> <li>• Chapter 11: Information Systems Management</li> </ul>	
<b>Submit:</b>	<ul style="list-style-type: none"> <li>• Unit VII Journal</li> <li>• Unit VII Case Study</li> </ul>	2% 11%

<b>Unit VIII</b>	<b>Information Systems Development</b>	<b>[ Weight: 14% ]</b>
<b>Read/View:</b>	<ul style="list-style-type: none"> <li>• Unit VIII Study Guide</li> <li>• Chapter 12: Information Systems Development</li> </ul>	
<b>Submit:</b>	<ul style="list-style-type: none"> <li>• Unit VIII Journal</li> <li>• Unit VIII Essay</li> </ul>	2% 12%