

Open Educational Resources for Computer Information Systems

[Information Systems for Business and Beyond](#)

This book is written as an introductory text, meant for those with little or no experience with computers or information systems. While sometimes the descriptions can get a little bit technical, every effort has been made to convey the information essential to understanding a topic while not getting bogged down in detailed terminology or esoteric discussions.

[Speaking JavaScript](#)

This book has been written for programmers, by a programmer. So, in order to understand it, you should already know object-oriented programming, for example, via a mainstream programming language such as Java, PHP, C++, Python, Ruby, Objective-C, C#, or Perl. Thus, the book's target audience is programmers who want to learn JavaScript quickly and properly, and JavaScript programmers who want to deepen their skills and/or look up specific topics. (Currently in use by Northwestern Michigan College).

[C++ Programming](#)

Students learn the mechanics of editing and compiling programs in C++. They begin with a discussion of the essential elements of C++ programming: variables, loops, expressions, functions, and string class. Then will cover the basics of object-oriented programming: classes, inheritance, templates, exceptions, and file manipulation. Then review function and class templates and the classes that perform output and input of characters to/from files. This course will also cover namespaces, exception handling, and preprocessor directives. In the last part of the course, students learn some slightly more sophisticated programming techniques that deal with data structures such as linked lists and binary trees.

[Introduction to Computing](#)

A full textbook that is available as a downloadable PDF. Computer science studies how to describe, predict properties of, and efficiently implement information processes. This book introduces the most important ideas in computing using the Scheme and Python programming languages. It focuses on how to describe information processes by

defining procedures, how to analyze the costs required to carry out a procedure, and the fundamental limits of what can and cannot be computed mechanically.

[The Missing Link: An Introduction to Web Development and Programming](#)

This text provides the developer with an understanding of the various elements of web development by focusing on the concepts and fundamentals through the examples within, providing a foundation that allows easier transition to other languages and a better understanding of how to approach their work.

[Relational Databases and Microsoft Access](#)

This text is a free introductory text that introduces MS Access and relational database design. The motivation is to support a second-year course on database systems which, to the student, is either a service course providing an introduction to database concepts, or, as a prerequisite for more advanced study in the field. Currently in use by San Bernardino Valley College.

[Spatial Thinking in Planning Practice: An Introduction to GIS](#)

The goals of this textbook are to help students acquire the technical skills of using software and managing a database, and develop research skills of collecting data, analyzing information and presenting results. We emphasize that the need to investigate the potential and practicality of GIS technologies in a typical planning setting and evaluate its possible applications.

[Operating Systems and Middleware: Supporting Controlled Interaction](#)

In this book, you will learn about all three kinds of interaction. In all three cases, interesting software techniques are needed in order to bring the computations into contact, yet keep them sufficiently at arm's length so that they don't compromise each other's reliability.

[Information Systems: A Manager's Guide to Harnessing Technology](#)

The teaching approach in this text encourages students to think deeper and more practically about the space where business and technology meet. Every topic is related to specific business examples, so students gain an immediate appreciation of its importance. Rather than starting with technical topics, the book starts with strategic thinking, focusing on big-picture issues that interest students.

[Getting the Most Out of Information Systems](#)

An OER source currently in use by San Bernardino Valley College, this textbook covers topics such as technology and modern enterprise, and several real-life example such as Zara (a fashion retailer) and Netflix, a streaming service that fully utilizes E-commerce today. It also goes over Moore's Law, understanding network effects in general, social media such as Facebook, understanding software (particularly for managers), information security, and more.

[Computer Networking : Principles, Protocols and Practice](#)

This open textbook aims to fill the gap between the open-source implementations and the open-source network specifications by providing a detailed but pedagogical description of the key principles that guide the operation of the Internet.

[An Introduction to Computer Networks](#)

An Introduction to Computer Networks is a free and open general-purpose computer-networking textbook, complete with diagrams and exercises. It covers the LAN, internetworking and transport layers, focusing primarily on TCP/IP. Particular attention is paid to congestion; other special topics include queuing, real-time traffic, network management, security and the ns simulator.

[Business Information Systems: Design an App for That](#)

Students in an introductory Management Information Systems (MIS) course often ask what a career in MIS looks like. Lacking a clear vision, they make their own assumptions. Often they assume the career involves programming with little human interaction. That MIS is a technical field could not be further from the truth. MIS job descriptions typically require candidates to be able to collaborate, communicate, analyze needs and gather requirements.

[GCF Learn Free](#)

An interactive website to learn computer basics. This site includes 125+ free online tutorials on computer basics, email, and Microsoft programs.

[SimonSez](#)

A playlist (Youtube) containing a complete series of training videos for Excel 2013. (Currently used by Northwestern Michigan College).

[Microsoft Office Full Length Video Tutorials](#)

A playlist (Youtube) of full, easy-to-follow video tutorials on Microsoft Office. (Currently used by Northwestern Michigan College).

[Programming Languages](#)

From Saylor Academy and currently used by Northwestern Michigan College, this is a full course with several units of reading on the topics of functional, imperative, object-oriented programming and more.

[Introduction to JavaScript](#)

From Khan Academy and currently used by Northwestern Michigan College, students can learn how to use the JavaScript language and the Processing JS library to create fun drawings and animations.

Other OER Resources

- *Modifying an Open Textbook: What You Need to Know*,
<https://press.rebus.community/otnmodify>
- InfoKit on Open Educational Resources,
<https://www.jisc.ac.uk/guides/open-educational-resources>

Textbook Affordability Program

@ **SBCC**

Background

In [response to student concerns](#) about the current price of course materials, SBCC has secured a grant to provide professional development opportunities and support for faculty interested in switching from high-cost, traditionally published textbooks to free or low-cost Open Educational Resources.

Please consult the [flow chart and stipend structure](#) for Open Educational Resources adoption guidelines and incentives.

Get Help

- For questions about OER, stipends, and the SBCC Textbook Affordability Program contact program coordinator [Camerin Poulson](#)
- For assistance finding OER and supplemental library materials contact Reference Librarian [Michelle Bone](#), Instruction Coordinator Librarian [Ellen Carey](#), or [Camerin Poulson](#).
- For technical and design assistance incorporating OER into your course contact the [Faculty Resource Center](#).
- For questions about how to offer print copies of your OER through the bookstore contact [Shane Bandy](#)
- To get a print copy of your OER placed on the library reserve contact [Camerin Poulson](#).
- For questions about acquiring accessible OER materials to support students with disabilities please contact [Laurie Vasquez](#), Assistive Technologies Specialist. To understand the interaction between accessibility and OER materials please use the [accessibility checklist](#) as a guide.