

Awardee of The Office of the National Coordinator for Health Information Technology

Component 16: Professionalism/ Customer Service in the Health Environment

Instructor Manual

Version 3.0/Spring 2012

Notes to Instructors

This Instructor Manual is a resource for instructors using this component. Each component is broken down into units, which include the following elements:

- Learning objectives
- Suggested student readings, texts, reference links to supplement the narrated PowerPoint slides
- Lectures (voiceover PowerPoint in Flash format); PowerPoint slides (Microsoft PowerPoint format), lecture transcripts (Microsoft Word format); and audio files (MP3 format) for each lecture
- Self-assessment questions reflecting Unit Objectives with answer keys and/or expected outcomes
- Application Activities (e.g., discussion questions, assignments, projects) with instructor guidelines, answer keys and/or expected outcomes

Contents

Notes to Instructors	2
Disclaimer	4
Component Overview	5
Component Objectives	5
Component Authors	6
Author Biography	10
Component 16/Unit 1	17
Component 16/Unit 2	19
Component 16/Unit 3	22
Component 16/Unit 4	24
Component 16/Unit 5	27
Component 16/Unit 6	29
Component 16/Unit 7	33
Component 16/Unit 8	36
Component 16/Unit 9	39
Component Acronym Glossary	41
Creative Commons Attribution-NonCommercial- ShareAlike 3.0 Unported	42

Disclaimer

These materials were prepared under the sponsorship of an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Likewise, the above also applies to the Curriculum Development Centers (including Columbia University, Duke University, Johns Hopkins University, Oregon Health & Science University, University of Alabama at Birmingham, and their affiliated entities).

Component Overview

This component develops the skills necessary to communicate effectively across the full range of roles that will be encountered in healthcare and public health settings.

Component Objectives

At the completion of this component, the student will be able to:

- Explain key elements of customer service in health IT.
- Demonstrate appropriate behaviors in simulations of health IT customer service.
- Demonstrate effective written and oral communication approaches to common communication interactions.
- Identify core elements of effective communication and techniques to resolve conflicts.
- Identify ethical and cultural aspects of communication.

Component Authors

Assigned Institution

University of Alabama at Birmingham, Birmingham, Alabama

Team Lead

Beth L. Elias, PhD, MS Community Health, Outcomes and Systems School of Nursing University of Alabama at Birmingham

Primary Contributing Authors

Beth L. Elias, PhD, MS Community Health, Outcomes and Systems School of Nursing University of Alabama at Birmingham

Darrell Burke, PhD
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Stephen J. O'Connor, PhD, FACHE
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Robert Weech-Maldonado, MBA, PhD Department of Health Services Administration School of Health Professions University of Alabama at Birmingham

Feliciano Yu, Jr., MD, MSHI, MSPH
Department of Pediatric
Washington University School of Medicine
St. Louis Children's Hospital in St. Louis, MO

Critical Reviewers

Meg N Bruck, MSHI Department of Health Services Administration School of Health Professions University of Alabama at Birmingham Virginia Caris, MA
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Amanda Dorsey, MSHI
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Nancy Dunlap, MD, PhD, MBA
Department of Pulmonary Medicine
School of Medicine
University of Alabama at Birmingham

Gerald L. Glandon, PhD
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Lori Little, RHIA Health Information Technology Program Itawamba Community College

Carol McKelvey, MA, RHIA Healthcare Information Programs Wallace State Community College

Donna Stanley, EdS, RHIA, CCS Healthcare Information Programs Wallace State Community College

Instructional Designers

Lorrinda Khan, MFA
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Matthew Jennings, EdM Nursing Clinical Simulation and Technology School of Nursing University of Alabama at Birmingham Dan L. Murphy, BS Nursing Clinical Simulation and Tech School of Nursing University of Alabama at Birmingham

Michelle Robinson, DMD, MA School of Dentistry University of Alabama at Birmingham

Test Item Writing Assistant

Susie P Bagwell, MA Birmingham, AL

Lecture Narration

Narration talent provided by Maestro Productions, Nashville, TN.

Narrators

Milton Bagby Lori Stegner

Sound Engineer

Bryan Talbot Talbot Sound Nashville, TN

Instructor Manual Editor

Shannon Houser, PhD, MPH, RHIA
Department of Health Services Administration
School of Health Professions
University of Alabama at Birmingham

Other Contributors

Lance Hanff, MSHI Health System Information Services University of Alabama at Birmingham

Jonathan McNair, MS Health Services Administration University of Alabama at Birmingham

Author Biography

Beth Elias, PhD, MS, is an Assistant Professor in the School of Nursing of the University of Alabama at Birmingham (UAB), and is Specialty Coordinator for Nursing Informatics. She has a PhD in Instructional Technology, an MS in Management of Information Technology and a BS in Computer Science. She has worked as a systems programmer analyst, Senior Computer Systems Engineer, Information Systems Engineer and Instructional Design Consultant at various settings. She has experience in developing and delivering online learning and in instructional message design. Much of her research has also explored issues in user acceptance related to healthcare information technology.

<u>Darrell Burke, PhD</u>, is an Associate Professor in the Master of Science in Health Informatics (MSHI) program. His research has focused on the adoption of health IT as well as healthcare operations research. He has designed courses and taught in the traditional, online and blended formats. He has published extensively on the role, measure and impact of healthcare information technology on delivery organizations and has taught for four universities and a for-profit online education institution. Dr. Burke is a member of the American Medical Informatics Institute (AMIA), Academy of Management Health Care Management Division, Healthcare Information Management and Systems Society (HIMSS) and the Institute of Industrial Engineering (IIE).

Stephen J. O'Connor, PhD, FACHE, is a Professor in the Department of Health Services Administration at the University of Alabama at Birmingham (UAB). He received his B.S. (microbiology) and M.P.A. (health systems planning) degrees from Indiana University, his M.B.A. degree (health services management) from the University of Dallas, and his Ph.D. (administration—health services) from UAB. Dr. O'Connor has been a Visiting Professor in the Master of International Health Management, Economics, and Policy program at Bocconi University in Milan, Italy. He has also served on the governing bodies of numerous health care organizations. Dr. O'Connor is the editor of the Journal of Healthcare Management (the official journal of the American College of Healthcare Executives), has served on the editorial advisory board of Health Care Management Review, and is a past-chair of the Health Care Management Division of the Academy of Management. He is co-editor, with Dr. Robert Hernandez, of the text, Strategic Human Resources Management in Health Services Organizations, third edition. Dr. O'Connor is board

certified in healthcare management as a Fellow in the American College of Healthcare Executives.

Robert Weech-Maldonado, MBA, PhD, is Professor and L.R. Jordan Endowed Chair in the Department of Health Services Administration, UAB. Dr. Weech-Maldonado is an organizational researcher who examines the impact of cultural competency strategies in reducing disparities in quality and access to care. His research projects include the development and testing of the Patient Assessments of Cultural Competency (PACC) and the Cultural Competency Assessment Tool for Hospitals (CCATH). He has evaluated racial/ethnic and language differences in patient experiences with care using data from the Consumer Assessments of Healthcare Providers and Systems (CAHPS). Dr. Weech-Maldonado is Co-Leader of the Research Program for the Minority Health & Health Disparities Research Center (MHRC), and serves as an advisory board member of the Deep South Resource Center for Minority Aging Research (RCMAR), the Lister Hill Center for Health Policy, and the Puerto Rico Health Services Research Institute. He is a member of the Cultural Competency Expert Panel for the National Quality Forum. He is an editorial board member for the journals of Health Services Research and Comparative Effectiveness Research.

Feliciano Yu, Jr., MD, MSHI, MSPH, is Assistant Professor, Department of Pediatrics, Washington University School of Medicine and Chief Medical Information Officer, St. Louis Children's Hospital in St. Louis, MO. He is also the Medical Director for the Pediatric Computing Facility at Washington University in St. Louis. He is the health informatics advisor for the National Association of Children's Hospitals and Related Institutions (NACHRI); Co-chair, Pediatric Health Information Technology Special Interest Group, Healthcare Information Management Systems Society (HIMSS); and Co-Chair, Health Level Seven (HL7) Child Health Work Group. He has taught the clinical and administrative systems course in the UAB MSHI graduate program, and has several funded research grants or projects on health IT, including health information exchange using HL7 Continuity of Care Document, Integrating the Healthcare Enterprise (IHE) XDS.b and XDS-I, telemedicine, and health services research on computerized physician order entry.

Meg Bruck, MSHI, is employed part-time in the Department of Health Services Administration at the University of Alabama at Birmingham. She provides management and review services on the HIT Curriculum

Development Center project. She is a graduate of Hunter College of the City University of New York with a Master's degree in Health Informatics from UAB. She has taught several components of the HIT Curriculum at Santa Fe College in Gainesville, FL.

<u>Virginia Caris, MA</u>, is employed part-time in the Department of Health Services Administration at UAB. She provides review and editorial services on the HIT Curriculum Development Center project. She is a graduate of Emory University with a Master's degree in American Literature from George Washington University. She has taught at Diné (Navajo) Community College and at the University of Montevallo and has worked in advertising and scientific/medical publishing.

Amanda Dorsey, MSHI, is the Program Director for the Master of Science in Health Informatics (MSHI) Program in the Department of Health Services Administration at UAB. She has extensive consulting and project management experience (over 10 years) in the healthcare IT industry and academia, including managing Healthcare IT implementations, contract negotiations, business continuity planning, HIPAA Privacy and Security regulations, strategic information systems planning and health IT outsourcing. In addition, she brings expertise in educational curriculum development and online instruction. Ms. Dorsey oversaw the conversion of the MSHI program to a distance learning modality four years ago. She has successfully worked with Ms. Kay Clements to transition and integrate the Health Information Management Program to the Masters level as a track in the MSHI Program. She provides quality assurance for all courses in the Graduate MSHI Program and has taught both Clinical and Administrative Systems and Project Management for Health Services Executives.

Nancy Dunlap, MD, PhD, MBA, is Professor, Department of Pulmonary Medicine, UAB School of Medicine; Vice-Chair for Clinical Services in the Department of Medicine at UAB; and Professor of Management in the UAB School of Business. She has also served as Chief of Staff and Chief Operation Officer, The Kirklin Clinic. She was clinical lead for selection and implementation of several of the UAB's clinical systems. She has extensive education, research and practice experience relevant to training Health IT workforce.

<u>Gerald L. Glandon, PhD</u>, is Professor and Chair of the Department of Health Services Administration of the School of Health Professions

of UAB. His doctorate is in Economics but he teaches and has done research in various aspects of Health Information Technology. He is the lead author of the 2008 book "Information Systems for Healthcare" Management," among other publications. He has designed and taught a number of courses relevant to this project in both traditional and online formats. Most recently, Dr. Glandon has served national organizations providing advice for major strategic decisions. These include the External Advisory Council for the National Association for Healthcare Quality as well as the Education Strategy Committee and Strategic Planning Committee for the American Health Information Management Association. In both cases, a major activity has been positioning these organizations to better prepare their membership for a future of greater use of healthcare information technology. For several years, Dr. Glandon has been the program director and leader of an annual meeting, the National Symposium for Healthcare Executives, which draws between 150-200 healthcare leaders from around the country.

Lori Little, RHIA, has been a member of the faculty of the Health Information Technology (HIT) Program at Itawamba Community College since 2008. She earned a B.S. degree in health informatics and information management from the University of Mississippi Medical Center. Over the past twelve years, her experience has ranged from coding to performance improvement and most recently a stint in education. Prior to becoming an educator, Ms. Little served as the Director of Health Information Services/Performance Improvement in various mental health settings. In addition, she worked in a general acute care setting as a coder for a period of time at the beginning of her career. She is an active member of the American Health Information Management Association and the Mississippi Association of Health Information Management.

Carol D. McKelvey, MA, RHIA, has been a member of the faculty of the Health Information Technology (HIT) Program at Wallace State Community College since 1993. She earned a B.S. degree in health information administration from the University of Alabama at Birmingham and an M.A. degree in health science from the University of Alabama. Over the past eight years, her concentration has been in the area of e-learning, serving as developer and instructor of distance education classes for the HIT Program, and evaluator of online course content and quality for Wallace State. Prior to becoming an educator, Ms. McKelvey served as the Director of Health Information Services in general acute care and

rehabilitation settings. She is an active member of the American Health Information Management Association and the Alabama Association of Health Information Management.

<u>Donna S. Stanley, EdS, RHIA, CCS</u>, is Director of the Health Information Technology (HIT) Associate Degree Program in the Health Division of Wallace State Community College in Hanceville, Alabama. She has been Program Director and Instructor in the HIT program since 1992, teaching both on campus and online courses. Mrs. Stanley is currently the Past-President of the Alabama Association of Health Information Management (AAHIM). In 2011 she became an AHIMA Approved ICD-10-CM/PCS Trainer.

Lorrinda Khan, MFA, is a Senior Instructional Design Specialist in the Department of Health Services Administration at the University of Alabama at Birmingham (UAB). She has a MFA and has worked as a senior textbook editor for professional publications at Davis Publications as well as an online instructor (Capella University, Southern New Hampshire University, Baker College). Her instructional design experiences include curriculum design and development for the Alabama Fire College and the University of South Florida College of Medicine. At UAB she provides support for online education for multiple graduate programs within the Department of Health Services Administration. She has extensive experience with course development and maintenance using a variety of online instructional technologies (Blackboard, WebCT, WebCT Vista, etc). She has also published guides for online instruction.

Matthew Jennings has a Master of Education in Instructional Design and is currently a Senior Instructional Design Specialist in the School of Nursing at UAB. Before working in his current position with the School of Nursing, he served as the System Administrator for UAB's Learning Management System, working with both faculty and IT. He has conducted numerous faculty training courses in the use of technology to enhance the educational experience. He has prior instructional design experience as an Instructional Technology Support Specialist at Augusta State University.

<u>Dan L. Murphy</u>, is an Instructional Design Manager in the School of Nursing. He has a BS in Corporate Training and Development and a prior Associate of Applied Science Degree (Instructor of Technology). He is currently studying for a Masters in Education in Instructional Technology. He has prior experience as a Technical Training Instructor and Technical

Training Evaluator for the US Air Force. He has developed a Virtual Patient Simulator for which he has a patent pending. He currently provides instructional design support for a number of externally funded projects including "Distance-Based Education for International Study Coordinators", "A Culturally Competent Online NNP Program", "Psychiatric NP program for the Rural Deep South", "Leadership Education in Child-Health Nursing (LECHN)", "Culturally Competent Alabama Clinical Nurse Leaders Program", and a "Distance Learning Culturally Competent ANP/GNP Program for rural and underserved populations."

Michelle Robinson, DMD, MA, is Associate Professor in General Dental Sciences and Associate Dean for Health Information and Business Systems at the UAB School of Dentistry. Her dental career has included private practice, teaching, consulting, outreach programs, and working with online learning and computer and communications technologies. In her current role, Dr. Robinson is completing her third clinical systems implementation and online curriculum for a professional school. Dr. Robinson is a graduate of the University of Medicine and Dentistry of New Jersey and has a master's degree in medical informatics from Columbia University. She also has several certifications, including Special Patient Care, IT Project Management, and Online Education. Among several honors and awards, Dr. Robinson is the recipient of the 2002 "Most Promising Health Professional" award from the International Women of Color in Health, Science and Technology, and the 2007 Faculty Award for research from the National Dental Association.

<u>Susan P. Bagwell, MA</u>, received her Masters degree in Education from The University of Alabama at Birmingham in 2009. She is an alumnus of the UAB Urban Teacher Enhancement Program. She has over six years of teaching experience and served as administrator and teacher at a summer learning program for urban school children.

Shannon Houser, PhD, MPH, RHIA, is an Associate Professor in the Department of Health Services Administration, School of Health Professions of UAB. Dr. Houser serves as a member of the American Health Information Management Association (AHIMA)'s Education Strategy Committee and Research Committee; and the Healthcare Information and Management Systems Society (HIMSS)'s Electronic Health Record Usability Taskforce. She has served on the editorial review board and is currently a reviewer of the Perspectives in Health Information Management journal, and associate editor of the International

Journal of Privacy and Health Information Management. Dr. Houser develops courses and teaches in the undergraduate and graduate Health Information Management Programs for both the traditional classroom courses and online/distance learning courses.

Unit Title

Customer Service in Healthcare IT

Unit Description

This unit describes Customer Service in Healthcare IT.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Describe the definitions of customer service.
- 2. Identify customers' needs based on context.
- 3. Discuss different metrics to measure customer service in Healthcare IT.

Unit Topics

- 1a.1 Customer Service in Healthcare IT, Definitions of Customers and Customer Service
- 1a.2 What is customer service?
- 1a.3 A service culture
- 1a.4 Who are healthcare IT customers?
- 1a.5 What do customers want?
- 1b.1 Customer Service in Healthcare IT, Measurement Challenges in Customer Service
- 1b.2 The challenge
- 1b.3 EHR customer service implementation success factors
- 1b.4 Meaningful use perspective
- 1b.5 Balancing customer demands

Lecture Titles

- 1a Definitions of Customers and Customer Service
- 1b Measurement Challenges in Customer Service

Unit References

(All links accessible as of 1/15/2012)

Lecture 1a

None.

Lecture 1a Charts, Tables and Figures

None.

Health IT Workforce Curriculum

Professionalism/Customer Service in the Health Environment Version 3.0/Spring 2012

Lecture 1a Images

Slides 12, 13, 14, 15, 16: Clip Art, Available from: Microsoft clips online Source Name: Used with permission from Microsoft.

Lecture 1b

None.

Lecture 1b Charts, Tables, Figures and ImagesNone.

Unit Required Readings

None.

Unit Suggested Readings

- Andrzejewski N, Lagua RT. Use of a customer satisfaction survey by health care regulators: a tool for total quality management. Public Health Rep. 1997 May-Jun;112(3):206-10; discussion 11. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1381992/pdf/pubhealthrep00040-0032.pdf
- 2. Rice A, Austin J, Gravina N. Increasing customer service behaviors using manager-delivered task clarification and social praise. J Appl Behav Anal. 2009 Fall; 42(3):665-9. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2741067/pdf/jaba-42-03-665.pdf

Student Application Activities

comp16_unit1_activity.doc comp16_unit1_activity_key.doc comp16_unit1_self_assess.doc comp16_unit1_self_assess_key.doc

Additional Materials

- Unruh P (eHow Contributor). The importance of attitude [Video]. Available from: http://www.ehow.com/video_4401138_the-importance-attitude-customer-service.html
- Unruh P (eHow Contributor). Customer Service Tips [Video]. Available from: http://www.ehow.com/video_4401163_customer-service-tips.html

^{*}Indicates this link is no longer functional.

Unit Title

Professional Behavior in the Healthcare Environment

Unit Description

This unit describes Professional Behavior in the Healthcare Environment.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Define contextual norms expected in healthcare organizations.
- 2. Discuss the importance of dress, deportment, demeanor, and grooming.

Unit Topics

- 2.1 Contextual norms
- 2.2 Contextual norms: defined
- 2.3 Norms and professional role
- 2.4 Norms and organizational setting
- 2.5 Contextual norms: what they mean for you
- 2.6 Deportment, behavior for the part
- 2.7 Professional deportment: defined
- 2.8 Purpose and goal of professional deportment
- 2.9 Unprofessional deportment
- 2.10 Understanding the deportment of healthcare professionals
- 2.11 Professional appearance
- 2.12 Purpose and goal of having a professional appearance
- 2.13 Hair, clothing, makeup
- 2.14 Scented hygiene products and perfumes
- 2.15 Fitting in the healthcare environment
- 2.16 Information technology staff responsibilities
- 2.17 Summary

Lecture Titles

2 Professional Behavior in the Healthcare Environment

Unit References

(All links accessible as of 1/15/2012)

^{*}Indicates this link is no longer functional.

Lecture 2

None.

Lecture 2 Charts, Tables, and Figures

None.

Lecture 2 Images

Slide 16: UAB Medicine Professional Standards Guide c.2011.

Unit Required Readings

None.

Unit Suggested Readings

- Clark M. Cultural context of medical practice. Western Journal of Medicine. 1983; 139(6): 806-10. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1011009/pdf/ westimed00196-0036.pdf
- 2. Gesme DH, Towle EL, Wiseman M. Essentials of staff development and why you should care. J Oncol Pract. 2010 Mar;6(2):104-6. Available from: http://www.ncbi.nlm.nih.gov/ pmc/articles/PMC2835475/pdf/jop104.pdf

Student Application Activities

comp16 unit2 activity.doc comp16 unit2 activity key.doc comp16 unit2 self assess.doc comp16 unit2 self assess key.doc

Additional Materials

- 1. eHow Contributor. How to act professionally. Available from: http://www.ehow.com/how 4474731 act-professionally.html
- 2. eHow Contributor. How to maintain personal boundaries in the workplace. Available from: http://www.ehow.com/how 4524398 maintain-personal
 - boundaries-workplace.html
- 3. Anderson A. Strategies for handling conflict. Available from: http://www.ehow.com/list 6509361 strategies-handling-conflict.html
- 4. Edwards T. The importance of diversity in the workplace. Available
 - http://www.ehow.com/about 5516774 importance-diversityworkplace.html

^{*}Indicates this link is no longer functional.

- 5. Welch C. Business causal ideas. Available from: http://www.ehow.com/way-5161550 business-casual-ideas.html
- Willman M. Business casual dress for women. Available from: http://www.ehow.com/way_5162671_business-casual-dress-women.html
- 7. eHow Contributor. What is men's business casual? Available from: http://www.ehow.com/facts 5978455 men s-business-casual.html

^{*}Indicates this link is no longer functional.

Unit Title

Overview of Communication Relevant to Health IT

Unit Description

This unit describes the Overview of Communication Relevant to Health IT.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Explain the purpose and goal of professional communication.
- 2. Describe what is meant by effective communication.
- 3. Discuss what is meant by ineffective communication.
- Identify communication needs of common roles in healthcare.
- 5. Describe Disability Etiquette's contribution to professional communication.

Unit Topics

- 3.1 Overview of communication relevant to Health IT
- 3.2 Unit 3: Objectives
- 3.3 Professional communication: purpose and goal
- 3.4 Effective communication
- 3.5 Ineffective communication
- 3.6 Communication and healthcare roles
- 3.7 Description of different professional roles in healthcare
- 3.8 Communication guidelines: face-to-face, electronic, phone
- 3.9 Disability etiquette and professional communication
- 3.10 Summary

Lecture Titles

3 Overview of Communication Relevant to Health IT

Unit References

(All links accessible as of 1/15/2012)

Lecture 3

None.

Lecture 3 Charts, Tables, Figures and Images

None.

^{*}Indicates this link is no longer functional.

Unit Required Readings

None.

Unit Suggested Readings

- Jirjis J, Weiss JB, Giuse D, Rosenbloom ST. A framework for clinical communication supporting healthcare delivery. AMIA Annu Symp Proc. 2005:375-9. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1560606/pdf/amia2005_0375.pdf
- Kai J, Beavan J, Faull C, Dodson L, Gill P, Beighton A. Professional uncertainty and disempowerment responding to ethnic diversity in health care: A qualitative study. PLoS Med. 2007 Nov 13;4(11):e323. Available from: http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.0040323
- 3. Kuziemsky CE, Varpio L, Hall P, Casimiro L, Leipe E, Weaver L, et al. Health information systems design to support a nursing model of care: opportunities and challenges. Stud Health Technol Inform. 2009;143:177-85.
- Watzlaf VJ, Rudman WJ, Hart-Hester S, Ren P. The progression of the roles and functions of HIM professionals: a look into the past, present, and future. Perspect Health Inf Manag. 2009;6:1i. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/ PMC2781732/pdf/phim0006-0001i.pdf

Student Application Activities

comp16_unit3_activity.doc comp16_unit3_activity_key.doc comp16_unit3_self_assess.doc comp16_unit3_self_assess_key.doc

Additional Materials

- 1. Economic independence through jobs and self-employment. Available from: http://www.disability.gov/employment
- Agosta L. Key IT roles on healthcare business intelligence project teams. Available from:
 - http://searchbusinessanalytics.techtarget.com/news/2240019453/ Key-IT-roles-on-healthcare-business-intelligence-project-teams
- 3. Healthcare and Technology Blog. Available from: http://www.myhealthtechblog.com

^{*}Indicates this link is no longer functional.

Unit Title

Key Elements of Effective Communication

Unit Description

This unit describes Key elements of effective communication.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Discuss the definition of communication.
- 2. Discuss assumptions used in communication.
- 3. Discuss the communication models from general to health-specific.
- 4. Discuss variables used in communication.
- 5. Define nonverbal communications.
- 6. Describe how nonverbal communication functions in the human communication process.
- 7. Describe specific dimensions and give examples of nonverbal communication.
- 8. Discuss communication in paper-based and electronic formats.
- 9. Discuss personal communication in the work setting.
- 10. Understand the importance of listening skills.
- 11. Understand the role of diversity.

Unit Topics

- 4a.1 Lecture 1, Key elements of effective communication, verbal communication
- 4a.2 Learning objectives
- 4a.3 Communication defined
- 4a.4 Assumptions of human communication
- 4a.5 Communication models
- 4a.6 Common health-specific communication models
- 4a.7 HIT communication
- 4a.8 Communication variables in healthcare
- 4a.9 Summary
- 4b.1 Lecture 2, Key elements of effective communication, nonverbal communication
- 4b.2 Nonverbal communication
- 4b.3 Learning objectives

^{*}Indicates this link is no longer functional.

- 4b.4 Nonverbal communication defined
- 4b.5 Importance of nonverbal communication
- 4b.6 Functions of nonverbal communication
- 4b.7 Dimensions of nonverbal communication
- 4b.8 Components of kinesics
- 4b.9 Components of proxemics
- 4b.10 Components of paralinguistics
- 4c.1 Summary4c.1 Lecture 3, Key elements of effective communication, using media for communication
- 4c.2 Using media for communication

Lecture Titles

- 4a Verbal Communication
- 4b Nonverbal Communication
- 4c Using Media for Communication

Unit References

(All links accessible as of 2/10/2012)

Lecture 4a

 Northouse LL, Northouse PG. Health communication: strategies for health professionals. 3rd ed. Stamford (CT): Appleton and Lange; 1998.

Lecture 4a Charts, Tables, and Figures

None.

Lecture 4a Images

Slide 16: Microsoft clip art. Used with permission from Microsoft.

Lecture 4b

1. Northouse LL, Northouse PG. Health communication: strategies for health professionals. 3rd edition. Stamford (CT): Appleton and Lange; 1998. page 129.

Lecture 4b Charts, Tables, and Figures

None.

Lecture 4b Images

Slide 7, 8: Microsoft clip art. Used with permission from Microsoft.

^{*}Indicates this link is no longer functional.

Lecture 4c

- Barber G. Improving your listening skills. Man With No Blog [Internet]. 2010 Jan 14. Available from: http://manwithnoblog.com/2010/01/14/improving-your-listening-skills/
- 2. Evenson R. Award-winning customer service: 101 ways to guarantee great performance. New York: Amacom; 2007.
- Gressang J. Cultural diversity issues in healthcare [Internet].
 Available from: http://www.uiowa.edu/hr/administration/linguistics/healthcare_diversity.pdf
- 4. Melanson MS. Effective telephone communication skills. Help Desk Institute [Internet]. 2003. Available from: http://www.thinkhdi.com/library/deliverfile.aspx?filecontentid=20
- Northouse LL, Northouse PG. Health communication: strategies for health professionals. 3rd ed. Stamford (CT): Appleton and Lange; 1998, p. 127.
- 6. Patterson RF. Email Basics.[Internet]. [updated 2010 Aug 11]. Available from: http://people.wku.edu/rich.patterson/e-mail.htm

Lecture 4c Charts, Tables, Figures and Images None.

Unit Required Readings

None.

Unit Suggested Readings

 Northouse LL, Northouse PG. Health communication: strategies for health professionals. Fifth ed. Stamford, CT: Appleton and Lange. 1998.

Student Application Activities

comp16_unit4_activity.doc comp16_unit4_activity_key.doc comp16_unit4_self_assess.doc comp16_unit4_self_assess_key.doc

Additional Materials

None.

^{*}Indicates this link is no longer functional.

Unit Title

Regulatory Issues: HIPAA and Standard Precautions

Unit Description

This unit describes Regulatory Issues: Standard Precautions and HIPAA.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Characterize the importance of and guidelines associated with infection control.
- 2. Relate protecting yourself and others with standard precautions.
- 3. Explain HIPAA and communication.

Unit Topics

- Regulatory issues: HIPAA and standard precautions 5.1
- 5.2 Infection control
- 5.3 Standard precautions
- 5.4 **HIPAA**
- 5.5 Important components of HIPAA
- HIPAA and communication 5.6
- 5.7 Guidelines for communication
- 5.8 Summary

Lecture Titles

5 Regulatory Issues: HIPAA and Standard Precaution

Unit References

(All links accessible as of 1/15/2012)

Lecture 5

None.

Lecture 5 Charts, Tables, and Figures

None.

Lecture 5 Images

Slide 5: Microsoft clip art. Used with permission from Microsoft.

^{*}Indicates this link is no longer functional.

Unit Required Readings

None.

Unit Suggested Readings

- Infection control in paediatric office settings.Paediatr Child Health. 2008 May;13(5):408-35. Available from: http://www.cps.ca/english/statements/ID/id08-03.htm
- Yassi A, Bryce EA, Maultsaid D, Lauscher HN, Zhao K. The impact of requiring completion of an online infection control course on health professionals' intentions to comply with infection control guidelines: A comparative study. Can J Infect Dis Med Microbiol. 2009 Spring;20(1):15-9. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690520/pdf/jidmm20015.pdf
- 3. Davis D, Having K. Compliance with HIPAA security standards in U.S. Hospitals. J Healthc Inf Manag. 2006 Spring;20(2):108-15.
- Rinehart-Thompson LA, Hjort BM, Cassidy BS. Redefining the health information management privacy and security role. Perspect Health Inf Manag. 2009;6:1d. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2781727/pdf/ phim0006-0001d.pdf/?tool=pmcentrez

Student Application Activities

comp16_unit5_activity.doc comp16_unit5_activity_key.doc comp16_unit5_self_assess.doc comp16_unit5_self_assess_key.doc

Additional Materials

Web-based Resources:

- 1. Healthcare-associated Infections (HAIs), Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/hai/
- Health Information Privacy. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy and Security Rules. Available from: http://www.hhs.gov/ocr/privacy/

^{*}Indicates this link is no longer functional.

(All materials for this unit are the same as those for Component 18/Unit 7)

Unit Title

Team and Small Group Communication

Unit Description

This unit describes Team and Small Group Communication.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Explore the phenomena of teams in our culture and look at the popularity and necessity of teams in delivering quality healthcare services
- 2. Define a team as compared to a group
- 3. Identify the stages of team development
- 4. Identify the characteristics of successful teams and team members
- 5. Analyze team conflict and performance
- 6. Define what we mean by virtual teams
- 7. Explore the guidelines for building and leading successful teams

Unit Topics

- 6a.1 Lecture 1: Characteristics of Teams and Small Groups
- 6a.2 Learning objectives
- Teamwork is essential to healthcare 6a 3
- 6a.4 Benefits of teams
- 6a.5 Distinguishing teams from groups
- Stages of team development 6a.6
- 6a.7 Characteristics of successful teams
- 6a.8 Summary
- 6b.1 Lecture 2: Managing Teams
- 6b.2 Teams in healthcare
- 6b.3 Being a "team player"
- 6b.4 Team conflict and performance
- 6b.5 Virtual teams
- 6b.6 Team building and leadership
- 6b.7 Summary

Lecture Titles

6a Team and Small Group Communication

^{*}Indicates this link is no longer functional.

6b Managing Teams

Unit References

(All links accessible as of 2/11/2012)

Lecture 6a

- 1. Beich E. The Pfeiffer book of successful team-building tools: Best of the annuals. San Francisco, CA:John Wiley & Sons, 2008, p.13-26.
- 2. Coutu D. Why teams don't work: an interview with Richard Hackman. Harvard Business Review. 2009 May 87(5):99-105.
- 3. Drew S, Coulson-Thomas C. Transformation through teamwork: The path to the new organization? Management Decision. 1996;34(1):7.
- Ferlie EB, Shortell SM. Improving the quality of health care in the United Kingdom and the United States: a framework for change. Milbank Quarterly 2001;79(2):281-314.
- 5. Gordon J. A perspective on team building: Elaine Biech. Journal of the American Academy of Business. 2002 Sep;2(1):185-8.
- 6. Katzenbach JR, Smith DK. The discipline of teams. Harvard Business Review. 2005 July-August:162-71.
- 7. Health Services Research. 2007;7(17). Available from: http://www.biomedcentral.com/1472-6963/7/17
- 8. Wake-Dyster W. Designing teams that work. Australian Health Review. 2001;24(4):34-41.
- Leggat SG. Effective healthcare teams require effective team members: Defining team work competencies. BMC West et al. The link between the management of employees and patient mortality in acute care hospitals. Int J of Human Resources Management. 2002;13(8):1299-1310.
- 10. Wheelan SA. Creating effective teams: a guide for members and leaders. 2nd ed. Thousand Oaks (CA): Sage Publications; 2005, p. 25.-30

Lecture 6a Charts, Tables, and Figures

None.

Lecture 6a Images

Slide 3, 5, 7, 8, 9: Microsoft clip art; Used with permission from Microsoft.

^{*}Indicates this link is no longer functional.

Lecture 6b

- 1. Gordon J. A perspective on team building: Elaine Biech. Journal of the American Academy of Business. 2002 Sep;2(1):185-8.
- 2. Janus IL. Victims of groupthink: a psychological study of foreign-policy decisions and fiascoes. Oxford, England: Houghton Mifflin: 1972.
- 3. Katzenbach JR, Smith DK. The discipline of teams. Harvard Business Review. 2005 July-August:162-71.
- Roebuck DB, Britt AC. Virtual teaming has come to stay guidelines and strategies for success. Southern Business Review. 2002 Fall;28(1):29-39.

Lecture 6b Charts, Tables, and Figures

None.

Lecture 6b Images

Slides 3, 5, 6, 12, 13: Microsoft clip art; Used with permission from Microsoft.

Unit Required Readings

None.

Unit Suggested Readings

- Lurie SJ, Fogg TT, Dozier AM. Social network analysis as a method of assessing institutional culture: three case studies. Acad Med. 2009 Aug;84(8):1029-35.
- 2. Lingard L, Regehr G, Orser B, Reznick R, Baker GR, Doran D, Espin S, Bohnen J, Whyte S. Evaluation of a preoperative checklist and team briefing among surgeons, nurses, and anesthesiologists to reduce failures in communication. Arch Surg. 2008 Jan;143(1):12-7; discussion 18.
- Murray D, Enarson C. Communication and teamwork: essential to learn but difficult to measure. Anesthesiology. 2007 May;106(5):895-6.

Student Application Activities

comp16_unit6_activity.doc comp16_unit6_activity_key.doc comp16_unit6_self_assess.doc comp16_unit6_self_assess_key.doc

^{*}Indicates this link is no longer functional.

Additional Materials

Web-based Resources:

- 1. Small group communication: Effective team communication. Available from:
 - http://www.buzzle.com/articles/small-group-communication-effective-team-communication.html
- Papa N. Challenges and benefits of group and team communication. Available from: http://www.ehow.com/list_6733703_challenges-benefits-group-team-communication.html

^{*}Indicates this link is no longer functional.

(All materials for this unit are the same as those for Component 18/Unit 8)

Unit Title Conflict Resolution

Unit Description

This unit describes Handling Conflict.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Define conflict.
- 2. Explore historical views of conflict
- 3. Explore conflict as a positive/negative force
- 4. Study various styles for handling conflict.
- 5. Review ways to promote positive conflict in a group.

Unit Topics

- 7a.1 Lecture 1: Definitions of Conflict
- 7a.2 Conflict defined
- 7a.3 Healthcare context
- 7a.4 Transitions in ideas about conflict
- 7a.5 Conflict good and bad
- 7a.6 Types of conflict
- 7a.7 Conflict resolution
- 7a.8 Summary
- 7b.1 Lecture 2: Managing Conflict
- 7b.2 Handling conflict
- 7b.3 Conflict handling styles
- 7b.4 Individual preferences in conflict situations
- 7b.5 Conflict intensity continuum
- 7b.6 Results of conflict
- 7b.7 Promoting positive conflict
- 7b.8 Summary

Lecture Titles

7a Definitions of Conflict 7b Managing Conflict

Unit References

(All links accessible as of 2/10/2012)

Health IT Workforce Curriculum Professionalism/Customer Service in the Health Environment Version 3.0/Spring 2012

^{*}Indicates this link is no longer functional.

Lecture 7a

- 1. Cosier RA, Dalton DR. Positive effects of conflict: a field assessment. Int J Conflict Mgmt.1990;1(1):81-92.
- 2. Forte PS. The high cost of conflict. Nursing Economics. 1997 May/ Jun;15(3):119-23.
- 3. Gardner DL. Conflict and retention of new graduate nurses. Western Journal Nursing Research. 1992 Feb;14(1):76-85.
- Kolb DM. Bartunek JM. Hidden conflicts in organizations: Uncovering behind the scenes disputes. Newbury Park (CA): Sage Publications; 1992.
- 5. Robbins SP, Judge TA. Organizational behavior. 12th ed. Upper Saddle River (NJ): Pearson Prentice Hall; 2007.
- 6. Yang J. Mossholder KW. Decoupling task and relationship conflict: the role of intragroup emotional processing. J Organizational Behavior. 2004;25(5):589-605.

Lecture 7a Charts, Tables, Figures, and Images None.

Lecture 7b

- 1. Janus IL. Victims of groupthink: a psychological study of foreign-policy decisions and fiascoes. Oxford, England: Houghton Mifflin; 1972.
- 2. Rahim MA. Managing conflict in organizations, 4th ed. New Brunswick (NJ):Transaction Publishers, 2011.
- 3. Robbins SP, Judge TA. Organizational behavior. 12th ed. Upper Saddle River (NJ): Pearson Prentice Hall; 2007.
- 4. Schaubhut NA. Technical brief for the Thomas-Kilmann conflict mode instrument: description of the updated normative sample and implications for use. CPP; 2007. Available from: https://www.cpp.com/pdfs/TKI Technical Brief.pdf
- 5. Sternberg RJ, Soriano LJ. Styles of conflict resolution. J Personality and Social Psychology.1984;47(a):115-26.

Lecture 7b Charts, Tables, and FiguresNone.

Lecture 7b Images

Slide 13: Microsoft clip art; Used with permission from Microsoft.

^{*}Indicates this link is no longer functional.

Unit Required Readings

None.

Unit Suggested Readings

- 1. Hersh W. A stimulus to define informatics and health information technology. BMC Med Inform Decis Mak. 2009; 9: 24.
- 2. Lemieux-Charles L. Physicians in health care management: 10. Managing conflict through negotiation. CMAJ. 1994 October 15; 151(8): 1129–32.

Student Application Activities

comp16_unit7_activity.doc comp16_unit7_activity_key.doc comp16_unit7_self_assess.doc comp16_unit7_self_assess key.doc

Additional Materials

Web-based Resources:

- Evans L. Successful team conflict management strategies. Available from:
 - http://www.life123.com/career-money/career-development/team-conflict/team-conflict-management-strategies.shtml
- Conflict resolution: Resolving conflict rationally and effectively. Available from:
 - http://www.mindtools.com/pages/article/newLDR 81.ht
- 3. All about facilitation, group skills and group performance management. Available from:
 - http://managementhelp.org/grp_skll/resource.htm

^{*}Indicates this link is no longer functional.

Unit Title

Ethical and Cultural Issues Related to Communication and Customer Service

Unit Description

This unit describes Ethical and Cultural Issues Related to Communication and Customer Service.

Unit Objectives

By the end of this unit the student will be able to:

- Characterize dimensions of ethics.
- 2. Identify major characteristics of culture.
- 3. Distinguish elements in intercultural communication.
- 4. Perform effective intercultural communication.

Unit Topics

- 8a.1 Lecture 1: Ethical Issues
- 8a.2 Learning objectives
- 8a.3 What are ethics?
- 8a.4 Approaches in ethical decision making
- 8a.5 Medical ethics committees
- 8a.6 Ethics and cultural issues related to communication
- 8a.7 Summary
- 8b.1 Lecture 2: Cultural Issues
- 8b.2 Learning objectives
- 8b.3 Diversity and healthcare
- 8b.4 Diversity and cultural differences
- 8b.5 Dimensions of diversity
- 8b.6 Potential benefits of workforce diversity
- 8b.7 Ethnocentrism and intercultural relationships
- 8b.8 Cultural differences that may affect communication
- 8b.9 Equal Employment Opportunity laws
- 8b.10 Implications of diversity for healthcare delivery
- 8b.11 Cultural competency
- 8b.12 Summary

Lecture Titles

8a Ethical Issues

8b Cultural Issues

^{*}Indicates this link is no longer functional.

Unit References

(All links accessible as of 1/16/2012)

Lecture 8a

Daft RL. Management. Mason (OH): South-Western Cengage Learning; 2008

Lecture 8a Charts, Tables, Figures, and Images None.

Lecture 8b

- 1. Daft RL. Management. Mason, OH: South-Ester Cengage Learning: 2008.
- Unequal treatment. Institute of Medicine. 2003.
- National Quality Forum (NQF). A Comprehensive Framework and Preferred Practices for Measuring and Reporting Cultural Competency: A Consensus Report. Washington DC: National Quality Forum; 2009.
- 4. National Quality Forum. Endorsing a framework and preferred practices for measuring and reporting culturally competent care quality. Washington DC: National Quality Forum; 2008.

Lecture 8b Charts, Tables, Figures, and Images None.

Unit Required Readings

None.

Unit Suggested Readings

- Cooper L, Beach M, Rachel L, Johnson R, Inui T. Delving below the surface: understanding how race and ethnicity influence relationships in health care. J Gen Intern Med. 2006 January; 21(S1): S21–S27.
- 2. Shrank W, Kutner J, Richardson T, Mularski R, Fischer S, Kagawa-Singer M. Focus group findings about the influence of culture on communication preferences in end-of-life care. J Gen Intern Med. 2005 August; 20(8): 703–9. doi: 10.1111/j.1525-1497.2005.0151.x.
- 3. Ngo-Metzger Q, Massagli M, Clarridge B, Manocchia M, Davis R, Iezzoni L, Phillips R. Linguistic and cultural barriers to care: perspectives of Chinese and Vietnamese immigrants. J Gen

^{*}Indicates this link is no longer functional.

Intern Med. 2003 January; 18(1): 44–52. doi: 10.1046/j.1525-1497.2003.20205.x.

Student Application Activities

comp16_unit8_activity.doc comp16_unit8_activity_key.doc comp16_unit8_self_assess.doc comp16_unit8_self_assess_key.doc

Additional Materials

Web-based Resources:

- 1. Hospitals, language, and culture: a snapshot of the nation. Available from: http://www.jointcommission.org/assets/1/6/hlc_paper.pdf
- Better communication, better care: provider tools to care for diverse populations. Available from: http://www.innovations.ahrg.gov/content.aspx?id=2908*
- 3. Diversity case studies: cultural diversity in nursing case studies. Available at: http://www.culturediversity.org/cases.htm

^{*}Indicates this link is no longer functional.

Unit Title

Personal Communications and Professionalism

Unit Description

This unit describes Personal Communications and Professionalism.

Unit Objectives

By the end of this unit the student will be able to:

- 1. Describe appropriate use of personal communication devices in the healthcare workplace.
- 2. Discuss the impact of inappropriate use of personal communication devices in the healthcare workplace.
- 3. Identify the differences between personal and professional communications.

Unit Topics

- 9.1 Learning objectives
- 9.2 Definitions
- 9.3 Business communications
- 9.4 Personal communications during work hours
- 9.5 Text messaging and email
- 9.6 Social media
- 9.7 Internet use
- 9.8 Communication devices
- 9.9 Special concerns in healthcare
- 9.10 Summary

Lecture Titles

9 Personal Communications and Professionalism

Unit References

(All links accessible as of 1/15/2012)

Lecture 9

 Patient Data Posted Online in Major Breach of Privacy. NYTimes. com. September 8, 2011. Available from: http://www.nytimes.com/2011/09/09/us/09breach.html?pagewanted=all

^{*}Indicates this link is no longer functional.

Lecture 9 Charts, Tables, Figures and Images None.

Unit Required Readings

None.

Unit Suggested Readings

- 1. van Lieshout EJ, van der Veer SN, Hensbroek R, Korevaar JC, Vroom MB, Schultz MJ. Interference by new-generation mobile phones on critical care medical equipment. Crit Care. 2007;11(5):R98.
- 2. Interpersonal communication. *Encyclopedia of Small Business*. Retrieved November 21, 2011, from Answers.com. Available from: http://www.answers.com/topic/interpersonal-communication

Student Application Activities

comp16 unit9 activity.doc comp16 unit9 activity key.doc comp16 unit9 self assess.doc comp16 unit9 self assess key.doc

Additional Materials

Web-based Resources:

- 1. Habelow E. What's the quickest way to irk a co-worker? Available from:
 - http://www.forbes.com/2010/06/30/office-work-pet-peeves-gossipfobes-woman-leadership-time-management.html
- 2. Corbo SA. Workplace Etiquette: It's important to master this essential skill for professional success. Advance For Nurses. Available from:
 - http://nursing.advanceweb.com/Article/Workplace-Etiquette.aspx
- 3. King T. Proper phone etiquette in the workplace. Available from: http://www.ehow.com/about 6740810 proper-phone-etiquetteworkplace.html
- 4. Answers.com: Interpersonal Communications. Available from: http://www.answers.com/topic/interpersonal-communication

^{*}Indicates this link is no longer functional.

Component Acronym Glossary

ADA - Americans with Disabilities Act

ARRA – American Recovery and Reinvestment Act

CMS – Center for Medicare and Medicaid Services

EEO – Equal Employment Opportunity

EHR - Electronic Health Record

EMI – Electromagnetic Interference

HAC – Hospital Acquired Condition

HIM – Health Information Management

HIPAA – Health Information Portability and Accountability Act

HITECH – Health Information Technology for Economic and Clinical Health

IT – Information Technology

POC - Point of Care

ROI – Return on Investment

SLA – Service Level Agreement

SMART - Specific, Measureable, Achievable, Realistic, Time Bound

SMCR - Source - Message - Channel - Receiver

VoIP - Voice over Internet Protocol

^{*}Indicates this link is no longer functional.



Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported CC BY-NC-SA

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/3.0/ or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

DETAILS of the NonCommercial-ShareAlike 3.0 Unported license:

You are free:

to Share — to copy, distribute and transmit the work

to Remix — to adapt the work

Under the following conditions:

Attribution — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work): Courtesy of The University of Alabama at Birmingham and the ONC Health IT Workforce Curriculum program.

Noncommercial — You may not use this work for commercial purposes.

Note: Use of these materials is considered "non-commercial" for all educational institutions, for educational purposes, including tuition-based courses, continuing educations courses, and fee-based courses. The selling of these materials is not permitted. Charging tuition for a course shall not be considered commercial use. Share Alike — If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one with the understanding that:

Waiver — Any of the above conditions can be <u>waived</u> if you get permission from the copyright holder (the university that created the work).

Public Domain — Where the work or any of its elements is in the <u>public domain</u> under applicable law, that status is in no way affected by the license.

Other Rights — In no way are any of the following rights affected by the license: Your fair dealing or <u>fair use</u> rights, or other applicable copyright exceptions and limitations;

The author's moral rights;

Rights other persons may have either in the work itself or in how the work is used, such as <u>publicity</u> or privacy rights.

Notice — For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to this web page (http://creativecommons.org/licenses/by-nc-sa/3.0/).

To view the Legal Code of the full license, follow this link: http://creativecommons.org/licenses/by-nc-sa/3.0/legalcode