Notes to Instructors

This Instructor’s Manual is a resource for instructors using the Introduction to Project Management component. Each component is broken down into units, each of which will 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

Separate materials are provided with units 3, 5, and 7 so students can have hands-on project management experience. Additional project management templates and materials are available with unit 3. These materials can be utilized throughout this component.

This material provides students with both analysis of and hands-on application of project management tools and techniques to real-life health IT scenarios.
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Component Overview

An understanding of project management tools and techniques that results in the ability to create and follow a project management plan.

Component Objectives

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

- Describe factors that are critical to project success.
- Develop a comprehensive project management plan.
- Define project scope that reflects stakeholder perspectives and project requirements.
- Prepare an effective work breakdown structure.
- Differentiate project life cycle models based on project characteristics.
- Develop estimates for project cost and schedule.
- Apply tools and techniques to manage project scope, time, and budget.
- Plan and implement effective communications with the project team and stakeholders.
- Differentiate roles of project team members.
- Select and apply appropriate tools and techniques for risk management, quality management, and change management.
Component Authors

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Theron Feist, MA is Instructional Technology Manager for the Johns Hopkins University School of Nursing. Previously, he held positions in the Johns Hopkins Enterprise Information Technology group managing software development projects and at the Center for Educational Resources, providing faculty instructional technology support. He has 15 years of project management experience in a variety of educational settings. In this 15 year time period, he has developed numerous courses and managed many large and complex projects building instructional technology infrastructure and building software programs. Mr. Feist is an Adjunct Professor at ITT Technical Institute where he teaches project management and software development courses.

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**Gabrielle B Haskins, PMP**

Gabrielle Haskins, PMP, has two Master Certificates from George Washington University, one in Information Technology Project Management, and one in Project Management, PMP certification from PMI 2009. In 2010 she was a lead faculty for the Health Information Technology project, at Lansing Community College and was responsible for adapting and creating the material for the workforce curriculum for the six roles from ONC/HHS, specifically preparing materials for the Implementation Project Manager and Technical Implementation Support Specialist.

**Lecture Narration/Sound Engineer**

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David Flass – Project Manager
Disclaimer

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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 19/Unit 1

Unit Title
An Overview of Health IT Projects

Unit Description
Students will receive a broad overview of project management including some distinctive characteristics of health IT projects. This unit includes several real scenarios to illustrate the diversity of projects in health IT.

Unit Objectives
By the end of this unit the student will be able to:
1. Review the history of project management.
2. Define what a project is.
3. Define project management.
4. Identify reasons that more organizations are implementing HIT projects.
5. Identify key characteristics for project success and failure.
6. Describe the range and characteristics of health IT projects.

Unit Topics / Lecture Titles
1.1 – Health IT Scenarios
1.2 – What Is Project Management?
1.3 – Reasons for Projects
1.4 – Role of the Project Manager
1.5 – Reasons Success/Failure

Unit References
(All links accessible as of 1/1/2012)

Lecture 1a
   Hoboken, NJ
3. Health Care Projects: PMI Healthcare Special Interest Group
   http://www.pmihealthcare.org/

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Lecture 1a Images

Lecture 1b

*Indicates this link is no longer functional.
3. Health Care Projects: PMI Healthcare Special Interest Group (http://www.pmihealthcare.org/*)

Student Application Activities
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Component 19/Unit 2

Unit Title
Project Life Cycles

Unit Description
This unit provides an overview of various project life cycles so that students can assess their appropriateness for use depending on characteristics of a project. Students examine processes, knowledge areas, and organizational influences that are critical to successful project management.

Unit Objectives
By the end of this unit the student will be able to:
1. Identify process groups and knowledge areas used in project management.
2. Differentiate linear, iterative, adaptive, and agile project life cycles.
3. Relate life cycle phases to reviews, milestones, and deliverables.
4. Compare various organizational structures as contexts for managing projects.

Unit Topics / Lecture Titles
2.1 – Project Management Elements
2.2 – Life Cycles
2.3 – Phases
2.4 – Organizations

Unit References
(All links accessible as of 1/1/2012)
Lecture 2a

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**Lecture 2a Images**


**Lecture 2b**


**Lecture 2b Images**


**Lecture 2c**


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Health IT Workforce Curriculum      Introduction to Project Management
Version 3.0/Spring 2012

This material was developed by Johns Hopkins University, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number IU24OC000013.

Lecture 2c Images
Slide 3: Example of a Life Cycle Model: Courtesy of: Theron Feist
Slide 11: Examples of Deliverables and Management Reviews in a Project Life Cycle. Courtesy of: Theron Feist

Lecture 2d

Lecture 2d Images
Slide 7. “Project Management in a Project-Based Organization.” Image courtesy Johns Hopkins University School of Nursing
Slide 8. “Project Management in a Matrix Organization.” Image courtesy Johns Hopkins University School of Nursing
Slide 9. “Project Management in a Project-Based Organization.” Courtesy of: Theron Feist

Student Application Activities
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Component 19/Unit 3

Unit Title
Project Selection and Initiation

Unit Description
Students learn what is necessary to get projects off to a strong start. Critical activities are to prepare a project charter and to identify and engage the project stakeholders.

Unit Objectives
By the end of this unit the student will be able to:
1. Identify the key elements of a project environment and HIT landscape.
2. Outline the needs for projects, how and why they are selected and initiated.
3. Construct a project charter.
4. Identify project stakeholders.
5. Generate a stakeholder register.

Unit Topics / Lecture Titles
3.1 – Project Initiation
3.2 – Project Charter
3.3 – Stakeholders & Stakeholder Register

Unit References
(All links accessible as of 1/1/2012)

Lecture 3a


**Lecture 3a Images**

**Lecture 3b**


**Lecture 3b Images**

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Lecture 3c


Additional Handouts:
- comp19_unit3_project_application.doc
- comp19_unit3_project_charter.doc
- comp19_unit3_stakeholder_register.doc
- comp19_unit3_change_request_template.doc
- comp19_unit3_lessons_learned.doc
- comp19_unit3_project_initiation_worksheet.doc
- comp19_unit3_project_status_update.doc
- comp19_unit3_risk_response_plan.doc
- comp19_unit3_risk_management_plan.doc
- comp19_unit3_statement_of_work.doc
- comp19_unit3_SWOT.doc

Student Application Activities
- comp19_unit3_activity.doc
- comp19_unit3_activity_key.doc
- comp19_unit3_self_assess.doc
- comp19_unit3_self_assess_key.doc

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Component 19/Unit 4

Unit Title
Project Planning Overview

Unit Description
In this unit, students will learn how to effectively plan projects and to develop a project management plan. Several key documentation components will be introduced.

Unit Objectives
By the end of this unit the student will be able to:
1. Identify the importance and purpose of effective planning.
2. Identify and describe each component of the project management plan.
3. Define and prepare project planning documents.

Unit Topics / Lecture Titles
4.1 – Project Management
4.2 – Project Management Processes and Groups
4.3 – Planning a Project
4.4 – Project Planning Processes

Unit References
(All links accessible as of 1/1/2012)

Lecture 4a

*Indicates this link is no longer functional.

**Lecture 4a Tables, Charts, Figures**
Table 4.1. Knowledge Areas. Courtesy of Theron Feist.
Table 4.2. Project Planning Process. Courtesy of Theron Feist.
Table 4.3 Project Scope Statement. Courtesy of Theron Feist.

**Lecture 4a Images**
Slide 3: An Overview of Project management detailing Projects, Operations and Programs. Courtesy of Theron Feist
Slide 5: Project Planning. Courtesy of Theron Feist.

**Lecture 4b**

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**Lecture 4b Tables, Charts, Figures**
Table 4.4. Responsibility Matrix. Courtesy of Theron Feist.
Table 4.5 Risk Register. Courtesy of Theron Feist.

**Lecture 4b Images**
Slide 6: Activity Sequencing, Courtesy of Theron Feist.

**Student Application Activities**
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Component 19/Unit 5

Unit Title
Managing Project Scope

Unit Description
This unit addresses a critical determinant of project success: defining and managing the scope of the project. Students learn the importance of eliciting stakeholder requirements and developing effective work breakdown structures.

Unit Objectives
By the end of this unit the student will be able to:
1. Analyze scope to develop the project scope statement.
2. Elicit stakeholder requirements for the project.
3. Create a Work Breakdown Structure (WBS).

Unit Topics / Lecture Titles
5.1 – Project Scope
5.2 – Stakeholder Requirements
5.3 – Work Breakdown Structure

Unit References
(All links accessible as of 1/1/2012)

Lecture 5a
6. SNOMED CT (Systematized Nomenclature of Medicine--Clinical Terms) is a comprehensive clinical terminology, originally created by the College of American Pathologists (CAP) and, as of April 2007, owned, maintained, and distributed by the International Health Terminology Standards Development Organisation (IHTSDO), a

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Version 3.0/Spring 2012
This material was developed by Johns Hopkins University, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number IU24OC000013.
not-for-profit association in Denmark. Available from:  
7. Stackpole C. A project manager’s book of forms: a companion to  
the PMBOK guide. Wiley; 2009: a companion to the PMBOK guide.  
Wiley; 2009
8. Whitten N. Neal Whitten’s let’s talk! more no-nonsense advice for  
project success. Management concepts; 2007

Lecture 5b
1. Fowler M. UML distilled: a brief guide to the standard object  
2. Highsmith JA. Agile project management: creating innovative  
products. 2nd ed.; 2009.
3. Houston S, Bove LA. Project management for healthcare  
4. Kerzner H. Project management: a systems approach to planning,  
 scheduling, and controlling. 10th ed. Wiley; 2009
5. Project Management Institute, A guide to the project management  
6. Stackpole C. A project manager’s book of forms: a companion to  
the PMBOK guide. Wiley; 2009: a companion to the PMBOK guide.  
Wiley; 2009
7. Whitten N. Neal Whitten’s let’s talk! more no-nonsense advice for  
project success. Management concepts; 2007

Lecture 5c
1. Fowler M. UML distilled: a brief guide to the standard object  
2. Highsmith JA. Agile project management: creating innovative  
products. 2nd ed.; 2009.
3. Houston S, Bove LA. Project management for healthcare  
4. Kerzner H. Project management: a systems approach to planning,  
scheduling, and controlling. 10th ed. Wiley; 2009
5. Project Management Institute, A guide to the project management  
6. Stackpole C. A project manager’s book of forms: a companion to  
the PMBOK guide. Wiley; 2009: a companion to the PMBOK guide.  
Wiley; 2009

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Lecture 5c Images

Additional Handouts
comp19_unit5_project_application.doc
comp19_unit5_scope_statement_template.doc
comp19_unit5_WBS.doc
comp19_unit5_WBS_template.doc

Student Application Activities
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comp19_unit5_activity_key.doc
comp19_unit5_self_assess.doc
comp19_unit5_self_assess_key.doc
Component 19/Unit 6

Unit Title
Managing Project Time, Cost, and Procurements

Unit Description
In this unit, students will gain an understanding of how to manage project schedules and spending. The unit will cover broad topics such as purchasing, procurement, cost estimation and scheduling.

Unit Objectives
By the end of this unit the student will be able to:
1. Define project management time activities.
2. Define project cost management activities.
3. Define project procurement activities.

Unit Topics / Lecture Titles
6.1 – Define activities and project schedule
6.2 – Develop estimates for project cost and budget
6.3 – Evaluate make or buy decisions
6.4 – Develop a procurement plan

Unit References
(All links accessible as of 1/1/2012)

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**Lecture 6a Charts, Tables, and Figures**

Table 6.1. Project Activities by Process Groups. Courtesy of Theron Feist.
Table 6.2 Time Management Outputs and Processes. Courtesy of Theron Feist.

**Lecture 6a Images**

Slide 7: Collect Process Requirements. Courtesy of Theron Feist.
Slide 9: Create the WBS Process. Courtesy of Theron Feist.

**Lecture 6b**

Lecture 6b Charts, Tables, and Figures
Table 6.3. Student Exercise. Courtesy of Theron Feist.
Table 6.4 Three Project Cost Management Processes. Courtesy of Theron Feist.
Table 6.5 Project Management Procurement Processes. Courtesy of Theron Feist.
Table 6.6 Courtesy of Theron Feist.

Student Application Activities
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Component 19/Unit 7

Unit Title
Managing Project Risk

Unit Description
A key to successful health IT projects is the pro-active management of risks: beginning with the preparation of a risk management plan. Risk management will be a continuing activity throughout the project, to identify risks and to plan and implement risk responses.

Unit Objectives
By the end of this unit the student will be able to:
1. Assess project risks.
2. Plan project responses.
3. Prepare and maintain a risk register.
4. Develop and execute a risk management plan.

Unit Topics / Lecture Titles
7.1 – Managing Project Risk
7.2 – Risk Management Processes
7.3 – Risk Management Plan

Unit References
(All links accessible as of 1/1/2012)

Lecture 7a

*Indicates this link is no longer functional.

Lecture 7a Charts, Tables, and Figures
Table 7.1 Outputs from Processes. Table courtesy of Johns Hopkins School of Nursing Staff.

Lecture 7a Images
Slide 4: Knowledge Areas, Image courtesy Theron Feist, Johns Hopkins School of Nursing Staff

Lecture 7b

Lecture 7b Tables, Charts, and Figures
Table 7.2 An example of a risk register. Courtesy of: Johns Hopkins School of Nursing Staff.
Table 7.3 Simple qualitative analysis. Courtesy of Johns Hopkins School of Nursing Staff.

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Lecture 7b Image
Slide 8. Risk Register. Courtesy of: Johns Hopkins School of Nursing Staff.

Unit Suggested Readings

Additional Handouts:
comp19_unit7_project_application.doc
comp19_unit7_project_risk_management.doc
comp19_unit7_risk_register_template.xls
comp19_unit7_brainstorming_template.doc

Student Application Activities
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comp19_unit7_self_assess.doc
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Component 19/Unit 8

Unit Title
Team Management and Communications

Unit Description
Whatever role you play on a project team, it is essential to understand basic concepts of team management and communications. This unit covers key elements of managing and communicating in a team, including the development of an HR and communications plan.

Unit Objectives
By the end of this unit the student will be able to:
1. Identify and describe roles of project team members.
2. Develop the human resources plan.
3. Acquire, develop, manage, and lead the project team.
4. Identify project communications responsibilities.
5. Develop a communications plan.

Unit Topics / Lecture Titles
8.1 – HR Management Process
8.2 – Project Communications

Unit References
(All links accessible as of 1/1/2012)

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Lecture 8a Tables, Charts, and Figures
Table 8.1. Resource Calendar. Courtesy of: Theron Feist.
Table 8.2. Role Requirements. Courtesy of: Theron Feist.
Table 8.3. Responsibility Matrix. Courtesy of: Theron Feist.
Table 8.4. Responsibility Matrix (2). Courtesy of: Theron Feist.

Lecture 8a Images

Lecture 8b


*Indicates this link is no longer functional.


Lecture 8b Images
Slide 11: Stages of Team Development. Courtesy of: Theron Feist.
Slide 15: Managing the Project Team. Image courtesy Johns Hopkins School of Nursing Staff.

Lecture 8c


*Indicates this link is no longer functional.
http://project-management-knowledge.com/definitions/p/project-communications-management/


Lecture 8c Tables, Charts, and Figures
Table 8.5. Stakeholder Registry. Courtesy of: Theron Feist.

Unit Suggested Readings
1. Team Management: Chapter 9 in Project Management Institute, A guide to the project management body of knowledge. 4th ed. Newtown Square, PA: PMI; 2008


Student Application Activities
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Component 19/Unit 9

Unit Title
Project Monitoring and Control

Unit Description
Project managers use monitoring and control tools and techniques to assess plans and deliverables, evaluate progress against plans, manage change requests, and review all project activities. It is critically important to keep the project within scope, budget, and schedule to meet stakeholder expectations.

Unit Objectives
By the end of this unit the student will be able to:
1. Direct project execution.
2. Track, review, and report project progress and performance.
3. Monitor and control project baselines.
4. Manage stakeholder expectations and change requests.

Unit Topics / Lecture Titles
9.1 – Direct and Manage Project Execution
9.2 – Track Project Performance
9.3 – Monitor and Control Project Work
9.4 – Manage Change

Unit References
(All links accessible as of 1/1/2012)

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Lecture 9a Charts, Tables and Figures
Table 9.1. Monitoring and Controlling Processes. Courtesy Johns Hopkins School of Nursing Staff.

Lecture 9a Images
Slide 3: Monitoring and Control in project Management. Courtesy of Johns Hopkins School of Nursing Staff.
Slide 10: Track Progress with a Gantt Chart. Courtesy of Johns Hopkins School of Nursing Staff.

Lecture 9b

**Unit Suggested Readings**


**Student Application Activities**

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Component 19/Unit 10

Unit Title
Quality Management

Unit Description
Quality is an elusive but essential component and consideration in any project. This unit will cover quality management planning and key characteristics of quality assurance and its impact on project management.

Unit Objectives
By the end of this unit the student will be able to:
1. Develop a quality management plan.
2. Perform quality assurance
3. Apply quality control techniques.

Unit Topics / Lecture Titles
10.1 – Total Quality Management Theory
10.2 – Quality Culture
10.3 – Quality Tools
10.4 – Quality Management Plan

Unit References
(All links accessible as of 1/1/2012)

Lecture 10a

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Lecture 10a Charts, Tables, Figures

Lecture 10a Images

Lecture 10b

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Lecture 10b Charts, Tables, Figures
10.2. Quality Control. Adapted from DoIT Project Management Advisor by Theron Feist. Available from: http://www.pma.doit.wisc.edu/plan/3-2/what.html

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Lecture 10b Images
Slide 10: Statistical Process Control. http://commons.wikimedia.org/wiki/File:Rule_3_Western_electric_control_chart.svg*

Unit Suggested Readings

Student Application Activities
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Component 19/Unit 11

Unit Title
Project Closure and Transition

Unit Description
It is essential that project managers know all the processes required to bring a project to a successful conclusion. Key steps include completing all deliverables on time, gaining customer acceptance, documenting the project lessons learned, and managing the transition to operations.

Unit Objectives
By the end of this unit the student will be able to:
1. Bring project activities to a close.
2. Conclude the customer acceptance process.
4. Update and close out project documents.
5. Manage transition to operations.

Unit Topics / Lecture Titles
11.1 – Project Closure and Transition

Unit References
(All links accessible as of 1/1/2012)

Lecture 11 a

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Lecture 11 b

Suggested Readings
Student Application Activities
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## Glossary

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACM</td>
<td>Association for Computing Machinery</td>
</tr>
<tr>
<td>AHIMA</td>
<td>American Health Information Management Association</td>
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<tr>
<td>AMIA</td>
<td>American Medical Informatics Association</td>
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<tr>
<td>CASE</td>
<td>computer assisted system engineering tools</td>
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<td>CDC</td>
<td>Centers for Disease Control</td>
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<tr>
<td>CMS</td>
<td>Centers for Medicare and Medicaid Services</td>
</tr>
<tr>
<td>CPOE</td>
<td>Computerized Provider Order Entry</td>
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<tr>
<td>CRMS</td>
<td>clinical research management System</td>
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<tr>
<td>DMAIC</td>
<td>define, measure, analyze, improve, control</td>
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<td>EHR</td>
<td>Electronic Health Records</td>
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<td>EMR</td>
<td>Electronic Medical Record</td>
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<td>Electronic Patient Record</td>
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<td>EVM</td>
<td>Earned Value Management</td>
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<td>HIMMS</td>
<td>Health Information Management Systems Society</td>
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<td>HIPPA</td>
<td>the Health Insurance Portability and Accountability Act of 1996</td>
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<td>HIT</td>
<td>Health Information Technology</td>
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<td>HITECH Act</td>
<td>Health Information Technology for Economic and Clinical Health Act</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>IEEE</td>
<td>Institute of Electrical and Electronics Engineers</td>
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<td>IFB</td>
<td>Invitation for Bid</td>
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<tr>
<td>INCOSE</td>
<td>International Council on Systems Engineering</td>
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<tr>
<td>IRR</td>
<td>internal rate of return</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>MU</td>
<td>meaningful use</td>
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<td>NPV</td>
<td>net present value</td>
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<td>PERT</td>
<td>Program Evaluation and Review Technique</td>
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<td>PDM</td>
<td>Precedence Diagram Method</td>
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<td>PDSA</td>
<td>Plan, Do, Study, Act</td>
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<tr>
<td>PM</td>
<td>Project Management</td>
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</table>
PMBOK—Project Management Body of Knowledge
PMI—Project Management Institute
QA—Quality assurance
QC—Quality control
RACI—Responsible, Accountable, Consulted, Informed
RAM—Responsibility Assignment Matrix
RFP—Request for Proposal
RFQ—Request For Quotation
RCA—root cause analysis
ROI—return on investment
SME—subject matter expert
SWOT—strengths, weaknesses, opportunities, threats
TQM—total quality management
WBS—work breakdown structure
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