



NORTHWESTERN  
UNIVERSITY

SCHOOL OF  
CONTINUING  
STUDIES

MED\_INF 408: Medical Technology Acquisition and Assessment

Winter 2015

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Office Hours: By appointment only

### Course Description

This course provides a practical examination of acquiring and assessing new medical technology. Students examine this process from the perspective of both a vendor, who needs to know how to meet the expectations of customers and their acquisition requirements, and a customer/practitioner, who must know how to validate technology selections and implementations. Topics include cost analysis and justification, economic models, capital purchase, leasing strategies, the application service provider or risk-sharing model, purchase agreements and contracts, writing an RFP, analyzing an RFP response, and the industry business trends.

### Text

Overly, M., & Kalyvas, J. R. (2004). *Software agreements line by line: A detailed look at software contracts and licenses and how to change them to fit your needs*. Boston, MA: Aspatore Books.

[ISBN-13: 978-1587623691]

Ury, W. (1993). *Getting past no: Negotiating in difficult situations*. New York, NY: Bantam Books.

[ISBN-13: 978-0553371314]

### Software

None.

### Prerequisites

None.

### Learning Goals

The goals of this course are to:

- Discuss the business imperatives and commitments needed for a major information technology acquisition.
- Examine the organizational dynamics, due diligence requirements, and purchasing alternatives to consider before engaging in the acquisition of major information technology products or services.
- Discuss the strengths and weaknesses of the various types of contracts and/or license agreements that can be used in a technology acquisition.
- Analyze the legal and business issues that drive contracting decisions.
- Create a request for proposal (RFP) that meets the organization's business imperatives.
- Evaluate vendors to acquire information technology products and services.
- Negotiate fair and ethical contracts that beneficially serve the business needs and missions of all parties involved by including incentive-based terms for both the buyer and vendor.

### Evaluation

The student's final grade will be determined as follows:

- Assignment 1: Statement of Work (60 pts.)
- Assignment 2: Consensus Statement of Work (30 pts.)
- Assignment 3: Request for Proposal (80 pts.)
- Assignment 4: Vendor Selection (80 pts.)
- Assignment 5: Contract Strategy and Negotiations (80 pts.)
- Class Participation (70 pts.)

**Total Points: 400 pts.**

## Grading Scale

A	95%–100%
A-	90%–94%
B+	88%–89%
B	83%–87%
B-	80%–82%
C+	78%–79%
C	73%–77%
C-	70%–72%
F	0%–69%

## Discussion Board Etiquette

The purpose of the discussion boards is to allow students to freely exchange ideas. It is imperative to remain respectful of all viewpoints and positions and, when necessary, agree to respectfully disagree. While active and frequent participation is encouraged, cluttering a discussion board with inappropriate, irrelevant, or insignificant material will not earn additional points and may result in receiving less than full credit. Frequency is not unimportant, but content of the message is paramount. Please remember to cite all sources—when relevant—in order to avoid plagiarism.

## Proctored Assessment

None.

## Attendance

This course will not meet at a particular time each week. All course goals; session learning objectives, and assessments are supported through classroom elements that can be accessed at any time. To measure class participation (or attendance), your participation in threaded discussion boards is required, graded, and paramount to your success in this class. Please note that any scheduled synchronous or “live” meetings are considered supplemental and optional. While your attendance is highly encouraged, it is not required and you will not be graded on your attendance or participation.

## Late Work

Work submitted late would have 10 points deducted for each day it is late. Assignments will not be accepted after two days and the student will receive zero points for the assignment.

## Learning Groups

Learning groups are utilized in this course. More information about learning groups will be provided by the instructors via the Blackboard course site.

## Academic Integrity at Northwestern

Students are required to comply with University regulations regarding academic integrity. If you are in doubt about what constitutes academic dishonesty, speak with your instructor or graduate coordinator before the assignment is due and/or examine the University Web site. Academic dishonesty includes, but is not limited to, cheating on an exam, obtaining an unfair advantage, and plagiarism (e.g., using material from readings without citing or copying another student's paper). Failure to maintain academic integrity will result in a grade sanction, possibly as severe as failing and being required to retake the course, and could lead to a suspension or expulsion from the program. Further penalties may apply. For more information, visit [www.scs.northwestern.edu/student/issues/academic\\_integrity.cfm](http://www.scs.northwestern.edu/student/issues/academic_integrity.cfm).

Plagiarism is one form of academic dishonesty. Students can familiarize themselves with the definition and examples of plagiarism, by visiting [www.northwestern.edu/uacc/plagiar.html](http://www.northwestern.edu/uacc/plagiar.html). A myriad of other sources can be found online.

Some assignments in this course may be required to be submitted through SafeAssign, a plagiarism detection and education tool. You can find an explanation of the tool at <http://wiki.safeassign.com/display/SAFE/How+Does+SafeAssign+Work>. In brief, SafeAssign compares the submitted assignment to millions of documents in large databases. It then generates a report showing the extent to which text within a paper is similar to pre-existing sources. The user can see how or whether the flagged text is appropriately cited. SafeAssign also returns a percentage score, indicating the percentage of the submitted paper that is similar or identical to pre-existing sources. High scores are not necessarily bad, nor do they necessarily

indicate plagiarism, since the score does not take into account how or whether material is cited. If a paper consisted of one long quote that was cited appropriately, it would score 100%. This would not be plagiarism, due to the appropriate citation. However, submitting one long quote would probably be a poor paper. Low scores are not necessarily good, nor do they necessarily indicate a lack of plagiarism. If a 50-page paper contained all original material, except for one short quote that was not cited, it might score around 1%. But, not citing a quotation is still plagiarism.

SafeAssign includes an option in which the student can submit a paper and see the resultant report before submitting a final copy to the instructor. This ideally will help students better understand and avoid plagiarism.

**Other Processes and Policies**

Please refer to your SCS student handbook at <[www.scs.northwestern.edu/grad/information/handbook.cfm](http://www.scs.northwestern.edu/grad/information/handbook.cfm)> for additional course and program processes and policies.

## Course Schedule

**Important Note:** Changes may occur to the syllabus at the instructor's discretion. When changes are made, students will be notified via an announcement in Blackboard.

### Session 1 January 5-11, 2015

#### Learning Objectives

After this session, the student will be able to:

- Articulate the roles of various organizational constituents in the acquisition process. Roles may include representatives from IT, legal, finance, and the clinical and business area.
- Identify who will own the acquisition within the organization.
- Build an acquisition team.

#### Course Content

##### Textbook Reading

Ury, Part 1

##### Online Reading (optional)

Prioritization Process Using Delphi Technique

Cline, A. (2000). *Prioritization process using Delphi technique*. Carolla Developments.

For this reading, navigate to [www.carolla.com](http://www.carolla.com) and click "White Papers." Then, select the paper titled "Prioritization Process Using Delphi Technique."

Delphi Method. (n.d.). Retrieved from the Creating Minds Web Site

For this reading, navigate to [www.creatingminds.org](http://www.creatingminds.org); and click "Tools." Then, select "Tools for creating ideas." Finally, click "Delphi Method"

Outline of an Acquisition Plan Outline of an Acquisition Plan

Acquisition plan (AP) template. (n.d.). Retrieved from the RFP Templates Web Site

For this reading, navigate to [www.rfptemplates.technologyevaluation.com](http://www.rfptemplates.technologyevaluation.com); and click "Acquisition Plan Template" from the left-hand menu.

##### Blackboard Reading

Session 1 Delphi Recording

#### Discussion Board

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter.

#### Assignments

None.

#### Sync Session

**Tuesday, January 6, 2015 - 7 to 9:00 p.m. central time.**

## **Session 2 January 12-18, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Differentiate between software, hardware, services, and systems acquisitions.
- Tailor an acquisition plan to meet needs of the hardware, services, and systems.
- Outline the contents of a good acquisition plan.
- Communicate the acquisition.
- Identify the problem or business need the acquisition will resolve.
- Create the contents of a statement of work (SOW) based on identified business need.

### **Course Content**

#### **Textbook Reading**

*Ury*, Part 2 (Sections 1, 2, and 3)

#### **Online Reading**

Statement of Work Template and Guidelines

*Infotech*. (n.d.). Retrieved from [www.infotech.com](http://www.infotech.com)

#### **Blackboard Reading**

Session 2 PowerPoint: The Acquisition Process

### **Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter

### **Assignments**

**Assignment 1 is due Sunday, January 18, 2015 at 11:55 p.m. (central time).** This is an individual assignment that each student must submit. For more information, click Assignments on the left navigation panel in Blackboard, and scroll to this assignment's item.

### **Sync Session**

## **Session 3 January 19-25, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Identify the correct design, structure, and content of a high-quality RFP.
- Explain the fundamental differences between RFPs that are destined for software, hardware, services, and systems procurements.
- Create an RFP for the identified business need.

### **Course Content**

#### **Textbook Reading**

*Overly*, Chapter 9

#### **Online Reading**

*RFP sample template*. Retrieved from the TGI Web site: [www.tgilt.com](http://www.tgilt.com)

This document is copyrighted by Technology Group International and is available as part of the TGI's Software Selection Tool Kit, which is available for free by registering with the site.

**Blackboard Reading**

Session 3 PowerPoint: Request for Proposal

**Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter

**Assignments**

**Assignment 2 is due Sunday, January 25, 2015 at 11:55 p.m. (central time).** This and the remaining 3 assignments for the term are group assignments. For more information, click Assignments on the left navigation panel in Blackboard, and scroll to this assignment's item.

**Sync Session****Session 4 January 26-February 1, 2015****Learning Objectives**

After this session, the student will be able to:

- Compare and contrast procurement models used by state, local, municipal, and federal governments.
- Explain how a group purchasing organization (GPO) operates and how it contributes to the health care system.
- Describe the key elements of a competitive bid process.

**Course Content****Textbook Reading**

Ury, Part 2 (Sections 4 and 5)

**Online Reading**

IBM Software: Thought Leadership Whitepaper. (April 2011). *Providing effective endpoint management at the lowest total cost.* Retrieve

<http://public.dhe.ibm.com/common/ssi/ecm/en/tiw14075usen/TIW14075USEN.PDF>

**Blackboard Reading**

Session 4 PowerPoint: Procurement Models and Rules

**Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter

**Assignments**

None.

**Sync Session**

## **Session 5 February 2-8, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Identify contract types and good and bad contracting terms.
- Explain payment models that share risk.

### **Course Content**

#### **Textbook Reading**

*Overly*, Introduction, Chapters 1, 2, and 3

#### **Online Reading (optional)**

Levi, J. D., Johnston, R. R., & Esteves, J. A. (2009). *Enforceability of Electronic Agreements*. In Information technology law 2008 in review. Skadden. Retrieved from [www.skadden.com](http://www.skadden.com)

For this reading, navigate to [www.skadden.com](http://www.skadden.com); and click “INSIGHTS.” Then search for “Information Technology Law 2008 in Review.” Finally, open the PDF and read pages 8 to 10 (*Enforceability of Electronic Agreements*).

#### **Blackboard Reading**

Session 5 PowerPoint: Building the Contract

### **Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students’ comments is graded. For this session’s discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter

### **Assignments**

None.

### **Sync Session (Attendance at the session is optional)**

## **Session 6 February 9-15, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Analyze the models for software licensing contracts.
- Explain the importance of accurate estimating techniques, including metrics, service level guarantees, warranties, and indemnification.

### **Course Content**

#### **Textbook Reading**

*Overly*, Chapters 4 and 5

#### **Online Reading**

*How to Make Software Contract Negotiations Work for Your Business* Disbrow, J. (2005), Gartner. Northwestern license this database and students have access to it through the library.

#### **Blackboard Reading**

Session 6 PowerPoint: Evaluating Software Agreements and Licenses

**Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter

**Assignments**

**Assignment 3 is due Sunday, February 15, 2015 at 11:55 p.m. (central time).** For more information, click Assignments on the left navigation panel in Blackboard, and scroll to this assignment's item.

**Sync Session****Session 7 February 16-22, 2015****Learning Objectives**

After this session, the student will be able to:

- Identify which risk management concepts apply to the acquisition and use during negotiations.
- Identify incentive clauses that share risk.
- Identify metrics to measure shared risk.
- Interpret the increasingly important role of transparency in an era of information availability.

**Course Content****Textbook Reading**

*Overly*, Chapters 6 and 7

**Online Reading (optional)**

*Love Thy Vendor*. Baldwin, G (2010). Health Media

**Blackboard Reading**

Session 7 PowerPoint: Risk Management

**Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter.

**Assignments**

None.

**Sync Session**



## **Session 8 February 23-March 1, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Explain risk management for negotiating and how to leverage risk concepts in contract negotiations.
- Identify incentive clauses that share risk, the logistics of negotiations, and use of metrics to ensure clarity.

### **Course Content**

#### **Textbook Reading**

*Overly*, Chapter 8

#### **Online Reading**

*Health Care Information Technology Contracts and Contract Negotiations Frequently Asked Questions (FAQs)*, HIMSS Legal Aspects of the Enterprise Task Force Deliverable May 31, 2008

### **Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter.

### **Assignments**

**Assignment 4 is due Sunday, March 1, 2015 at 11:55 p.m. (central time).** For more information, click Assignments on the left navigation panel in Blackboard, and scroll to this assignment's item.

### **Sync Session**

## **Session 9 March 2-8, 2015**

### **Learning Objectives**

After this session, the student will be able to:

- Explain the process of notifying contract winners and losers.
- Identify the steps that follow the contract award to begin the next phases of the project.
- Outline the process of selecting a final vendor.

### **Course Content**

#### **Textbook Reading**

*Ury*, Part 3

### **Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter.

### **Assignments**

None.

### **Q&A Session (Attendance at the session is optional)**

**Session 10 March 9-15, 2015****Learning Objectives**

After this session, the student will be able to:

- No new learning objectives will be introduced in this Session.

**Course Content**

None.

**Discussion Board**

Each session you are required to participate in the session-specific discussion board forum. Your participation in both posting and responding to other students' comments is graded. For this session's discussion topic(s), visit the discussion board in Blackboard. Students are encouraged to start discussion threads with insights and dialogue relevant to the session subject matter.

**Assignments**

**Assignment 5 is due Friday, MARCH 13, 2015 at 11:55 p.m. (central time).** For more information, click Assignments on the left navigation panel in Blackboard, and scroll to this assignment's item.

**Sync Session**

None.