



NYU

**ROBERT F. WAGNER GRADUATE
SCHOOL OF PUBLIC SERVICE**

HPAM-GP 4822

Healthcare Information Technology:

Public Policy and Management

Fall 2023, Section 001

Instructor Information

- Name: Josh Gluck
- Email: jdg202@nyu.edu
- Office Hours: By appointment

Course Information

- Class Meeting Times: Thursdays, 10/26 – 12/14, 6:45-8:25 pm
- Class Location: 31 Washington PI - Silver Center Rm 412
- Credits: 1.5
- Prerequisites: HPAM-GP 1833 Health Svcs Management, or by instructor's permission
- This course is required of all health management specialization students.

Course Description

This course describes the growing involvement of the federal government in stimulating and directing the development of information technology in healthcare organizations. We will explore this by having:

1. A discussion of attempts to exchange information for the purposes of improving the quality of personal healthcare and public health.
2. A collective description on methods for determining the financial value of information technology are described.
3. A presentation of techniques for ensuring the security and privacy of health information.
4. An examination of information systems and technology that can improve the quality of service provided to consumers and the clinical quality of health care.

Through the use of readings and case studies, you will analyze a variety of scenarios and incorporate appropriate methods, measurement tools, and data elements to improve quality and safety and make a business case for system-level changes to improve outcomes.

Course Objectives

Students who successfully complete this course will be able to:

- **CO 01:** Describe the principal programs of the federal government to encourage the adoption of information technology and data sharing among organizations.
- **CO 02:** Identify the obstacles to achieving the objectives of the federal government's principal programs.
- **CO 03:** Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.
- **CO 04:** Describe methods for sharing digital information within an organization.
- **CO 05:** Compare the obstacles and potential solutions to the risks of increased digital information sharing.
- **CO 06:** Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.
- **CO 07:** Contrast methods for determining the financial value of information systems in terms of strengths and weaknesses.
- **CO 08:** Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.

Learning Assessment

Assignments, exams, and class participation in the course will assess progress against these competencies, and no student will receive a B or higher without demonstration of satisfactory progress towards mastery of each competency. Expected levels of competency are denoted below:

Level of Competency

In addition, the level of competency expected to be achieved should be denoted, according to the following key:

[1] = Basic: Foundational understanding of knowledge/skill/competency

[2] = Intermediate: Student demonstrates greater depth of understanding of this knowledge/skill/competency and can use this ability to analyze a problem

[3] = Advanced: Student demonstrates expertise in this knowledge/skill/competency

and can use this ability to evaluate, judge, and synthesize information

Learning Assessment Table

Program Competency	Corresponding Course Objectives	Corresponding Assignments	Expected Level of Competency
<p>PC 01: Manage and lead people, teams, and organizations, including the ability to work effectively with diverse colleagues to build inclusive organizations.</p>	<p>CO 02: Identify the obstacles to achieving the objectives of the federal government's principal programs.</p> <p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p>	<p>Discussion assignments</p> <p>Live sessions</p> <p>Group project</p>	2
<p>PC 02: Develop strategies and align organizational design to support and achieve an organization's mission and vision.</p>	<p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p>	<p>Discussion assignments</p> <p>Live sessions</p> <p>Group project</p>	2
<p>PC 03: Apply knowledge about the social determinants of health and work collaboratively with leaders across—including efficiency, quality of care, patient engagement, and equitable access to services.</p>	<p>CO 08: Propose information systems and tCO4: Describe methods for sharing digital information within an organization.</p> <p>CO 05: Compare the obstacles and potential solutions to the risks of increased digital information sharing.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments</p> <p>Live Sessions</p> <p>Group project</p>	3
<p>PC 04: Use data and evidence-based management practices to improve managerial decision-making and organizational performance, including efficiency, quality of care, patient engagement, and equitable access to services.</p>	<p>CO 02: Identify the obstacles to achieving the objectives of the federal government's principal programs.</p> <p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p> <p>CO 04: Describe methods for sharing digital information within an organization.</p> <p>CO 05: Compare the obstacles and potential solutions to the risks of increased digital information sharing.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments</p> <p>Live Sessions</p> <p>Group project</p>	3

<p>PC 05: Provide effective financial management for healthcare organizations, including effective use of accounting and budgeting practices.</p>	<p>CO 07: Contrast methods for determining the financial value of information systems in terms of strengths and weaknesses.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments Live sessions Group project</p>	<p>3</p>
<p>PC 06: Influence and respond to policies that promote the performance of the US healthcare system and healthcare organizations, based on understanding and analysis of the system's history, organization and finances</p>	<p>CO 01: Describe the principal programs of the federal government to encourage the adoption of information technology and data sharing among organizations.</p> <p>CO 02: Identify the obstacles to achieving the objectives of the federal government's principal programs.</p> <p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p>	<p>Discussion assignments Live sessions Group project</p>	<p>3</p>
<p>PC 07: Communicate effectively with diverse stakeholders using a variety of communication approaches.</p>	<p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments Live sessions Group project</p>	<p>3</p>
<p>PC 08: Develop and manage innovations to improve organizational performance and population health.</p>	<p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments Live sessions Group project</p>	<p>3</p>
<p>PC 09: Manage and behave legally and ethically in a complex, highly-regulated healthcare environment.</p>	<p>CO 02: Identify the obstacles to achieving the objectives of the federal government's principal programs.</p> <p>CO 03: Establish plans to reduce the impact of obstacles to the proper implementation of the federal government's principal programs.</p> <p>CO 06: Create solutions to mitigate risks to the security and privacy of information stored in computer-based information systems.</p> <p>CO 07: Contrast methods for determining the financial value of information systems in terms of strengths and weaknesses.</p> <p>CO 08: Propose information systems and technologies which could improve the satisfaction of consumers or the clinical quality of a health care service.</p>	<p>Discussion assignments Live sessions Group project</p>	<p>3</p>

Course Resources

Required Resources - Case Studies ([HBSP Coursepack for Purchase](#))

- Case Study 1: "Stanford Medicine: Health IT Purchasing Decisions in a Complex Medical Organization" Chess, R., & Kissick, R. (2017) *Case No. E615 TN*. Stanford, CA:

Stanford Graduate School of Business.

- Case Study 2: “Implementing an Electronic Health Record at the Central City Medical Group”, Shehnaz Alidina; Lili Beit; Michael Brown M.D., Harvard T. H. Chan School of Public Health
- Case Study 3: “Carolinas Healthcare System: Consumer Analytics”. John A. Quelch; Margaret Rodriguez, Harvard Business School
- Case Study 4: “Innovating Beyond Ochsner”, Richard G. Hamermesh, Olivia Hull, Harvard Business School
- Weill, P., & Aral, S. (2006). Generating Premium Returns on your IT Investments. MIT Sloan Management Review. Volume 47(2), 38-49.

Optional Case Studies

- Gogan, J.L., Davidson, E.J., & Proudfoot, J. (2016). The HealthCare.gov project. Journal of Information Technology Teaching Cases. 6. <https://doi.org/10.1057/jittc.2016.2>
- Schlesinger, L.A., & Bhayani, P.D. (June 2015. Revised November 2016). HealthCare.gov: The Crash and the Fix (A). Harvard Business School Case 9-315-129. Boston, MA: Harvard Business School Publishing.

Case studies should be purchased [here through the HPAM-GP.4822 Course Pack](#)

Textbook:

This book is available for free as an ebook via [the NYU Library](#).

- Wager, K. A., Lee, F. W., & Glaser, J. P. (2017). Health Care Information Systems: A Practical Approach for HealthCare Management 4th Ed. Hoboken, NJ: John Wiley & Sons.

Assessment Assignments and Evaluation

Class Contribution and Attendance (20%):

You should arrive at class on time. Any absence must be explained and justified beforehand; your grade will be lowered if you do not do so. A grading rubric for the live class sessions will be posted in NYU Brightspace.

Individual Case Study Assignments (30%):

On most weeks, you will be asked to respond to a question(s) related to the assigned case. Responses should be no more than one single-spaced page and are due by 11:00PM following our class sessions via NYU Brightspace.

Group Project (50%):

At the beginning of the semester, you will be placed in a group for the Group Project. You may meet with your teammates virtually using the collaboration tools available on the NYU Brightspace site.

Assignment Instructions

Group Project:

Each group will select one of the prompts provided, and build a business case. The business case should be prepared as if it's being presented to senior leadership at a firm/hospital in order to receive approval funding for the project to move forward.

1. The presentation should follow the exact same format as the business case. After the title slide, the following presentation sections should be included:
 - Executive summary
 - Clearly defined project objectives and scope of analysis
 - System goals and requirements (think of this as a "wish list")

- Prioritized system goals and requirements (think of this as the “final list” which the group will need to explain how it narrowed their focus from the previous “wish list”)
- A market scan including top 3 vendor profiles
- An exploration of other options for acquiring system (buy vs. build)
- A cost-benefit analysis
- A summary report and recommendations

Since this is a presentation and not a paper, teams are encouraged to use visual cues or graphics rather than having text-heavy slides wherever possible.

Each member of the team should be provided with an opportunity to present. Teams may decide to divide up the sections, or to have each individual provide his or comments or reflections on each section. Teams will be graded on your inclusion of all teammates in the presentation.

This is your opportunity to share a bit of the behind the scenes interaction or negotiation that took place as the team considered alternatives, and eventually selected one or two recommendations. What led to the decision to recommend one specific course of action over another?

Each group will grade each other’s presentations. The group-assigned grades will be averaged with the grade assigned to the presentation by the Instructor; The Instructor grade will be more heavily weighted than the group-assigned grades. The final weighted average of all of the above presentation grades will make up your final group project grade.

Presentations will be graded based on the presentation rubric, which will be posted in NYU Brightspaces.

Prompts:

1. A healthcare system has a limited number of specialists across three locations. Because the demand for these specialists varies, system managers are unsure if it’s worth hiring more specialists across each location. A study has been conducted which concluded the implementation of telecommunications and mobility technology will enable these critical specialists to be utilized more efficiently and scale as needed.

2. A healthcare system recently conducted a patient satisfaction survey. Though the physicians were highly rated, this healthcare system received extremely low ratings for patient experience. Competing healthcare systems offer Interactive Patient Care (IPC) that provides entertainment and education programs while patients wait and/or are in the hospital for several days and your organization is interested in a similar implementation.

3. A healthcare system's leadership is looking for a patient portal that allows for appointment scheduling, secure information sharing with patients (i.e., lab results), showcases medical and payment history to the patient, and provides digital specialist referrals. However, leadership can't decide on whether they should custom build the portal or buy a product "off the shelf".
4. A healthcare system is looking to find some savings in its budget and realized there are savings if they can cut down the use of paper. For example, their administrative staff spends far too much time scanning registration documents into their EHR system and/or finding lost documents that may ultimately need to be reproduced, leading to delays in patient care. Patients also get extremely frustrated when they are asked to fill out forms again. A decision has been made to explore implementing an Enterprise Content Management (ECM) system to solve the problem.
5. A healthcare system's ACO pilot is looking to improve clinical outcomes, reduce healthcare costs, and boost patient engagement for its diabetes population. Many competitors have begun implementing new mobile solutions to support similar patient populations and your organization has decided it should follow the market and implement their own.
6. A large employer is considering offering a digitally-driven wellness coaching program to promote more preventive care, help those employees that are "at-risk" for chronic diseases, and to boost engagement for those with chronic diseases. There is concern whether there will be an ROI for this investment. Help this employer select a vendor that matches its requirements and can deliver an ROI on both quantitative and qualitative metrics.

Letter Grades

Letter grades for the entire course will be assigned as follows:

Letter Grade	Points
A	4.0 points
A-	3.7 points
B+	3.3 points
B	3.0 points
B-	2.7 points
C+	2.3 points
C	2.0 points
C-	1.7 points
F	0.0 points

Student grades will be assigned according to the following criteria:

- (A) Excellent: Exceptional work for a graduate student. Work at this level is unusually thorough, well-reasoned, creative, methodologically sophisticated, and well written. Work is of exceptional, professional quality.
- (A-) Very good: Very strong work for a graduate student. Work at this level shows signs of creativity, is thorough and well-reasoned, indicates strong understanding of appropriate methodological or analytical approaches, and meets professional standards.
- (B+) Good: Sound work for a graduate student; well-reasoned and thorough, methodologically sound. This is the graduate student grade that indicates the student has fully accomplished the basic objectives of the course.
- (B) Adequate: Competent work for a graduate student even though some weaknesses are evident. Demonstrates competency in the key course objectives but shows some indication that understanding of some important issues is less than complete. Methodological or analytical approaches used are adequate but the student has not been thorough or has shown other weaknesses or limitations.
- (B-) Borderline: Weak work for a graduate student; meets the minimal expectations for a graduate student in the course. Understanding of salient issues is somewhat incomplete. Methodological or analytical work performed in the course is minimally adequate. Overall

performance, if consistent in graduate courses, would not suffice to sustain graduate status in “good standing.”

- (C/-/+) Deficient: Inadequate work for a graduate student; does not meet the minimal expectations for a graduate student in the course. Work is inadequately developed or flawed by numerous errors and misunderstanding of important issues. Methodological or analytical work performed is weak and fails to demonstrate knowledge or technical competence expected of graduate students.
- (F) Fail: Work fails to meet even minimal expectations for course credit for a graduate student. Performance has been consistently weak in methodology and understanding, with serious limits in many areas. Weaknesses or limits are pervasive.

Detailed Course Schedule

10/26/23 Class 1: Government Support for HIT

Learning Objectives

- **LO 01:** Know the history of major government initiatives in information technology in the healthcare industry.
- **LO 02:** Differentiate between business and project risks in healthcare information technology.
- **LO 03:** Identify key challenges related to the implementation, evaluation, and management of healthcare IT.
- **LO 04:** Differentiate types of health and healthcare data that information systems need

Reading:

- *Textbook, Chapters 1, 2, 10 & 11*
- David Blumenthal, “[Stimulating the Adoption of Health Information Technology](#)” NEJM Volume 360 — April 9, 2009 — Number 15.
- David Blumenthal and Marilyn Tavenner, “[The ‘Meaningful Use’ Regulation for Electronic Health Records.](#)” NEJM 363:6 (August 5, 2010): 501-504
- The History of Healthcare Technology and the Evolution of EHR: <https://www.baytechit.com/history-healthcare-technology/>
- Laws, Regulation, and Policy | HealthIT.gov: <https://www.healthit.gov/topic/laws-regulation-and-policy>

11/2/23 Class 2: Opportunities to Leverage Technology Across the Healthcare Industry

Learning Objectives

- **LO 01:** Know the types and sources of healthcare data.
- **LO 02:** Identify key challenges in acquiring, analyzing and comparing healthcare data.
- **LO 03:** Understand the uses of data in healthcare information technology.

Reading:

- Textbook, Chapters 3 & 4
- [“The New Health Economy” PwC Health Research Institute.](#)
- [“Global Top Health Industry Issues 2021”](#) PwC Global Research
- Discuss: Case Study 1: “Stanford Medicine: Health IT Purchasing Decisions in a Complex Medical Organization” Chess, R., & Kissick, R. (2017) *Case No. E615 TN*. Stanford, CA: Stanford Graduate School of Business.

11/09/23 Class 3: HIPAA Security and Privacy

Learning Objectives

- **LO 01:** Understand the complexities of protecting data while enabling its use in research & clinical practice
- **LO 02:** Understand the uses of data in healthcare information technology.
- **LO 03:** Explore the risks and challenges of data privacy, security and interoperability
- **LO 04:** Understand the threat landscape and what practices are being used to protect healthcare organizations against them

Reading:

- Textbook, Chapter 9 – Privacy and Security
- Guest Speaker: Brian J. Tschinkel - CISO – Weill Cornell Medicine

11/16/23 Class 4: Selecting & Implementing Technology in Healthcare

Learning Objectives

- **LO 01:** Apply a project management approach to technology implementation.
- **LO 02:** Explain the change management process of implementing new technology.
- **LO 03:** Evaluate the tradeoffs inherent in a project's design.
- **LO 04:** Determine the complexities of IT purchasing decisions.

- **LO 05:** Differentiate between the various options of buying technology, building technology, and partnering with other companies for existing technology.
- **LO 06:** Identify the major steps involved in conducting a risk analysis for a new information technology system.

Reading:

- Textbook, Chapters 5, 6, & 7
- Discuss: Case Study 2: “Implementing an Electronic Health Record at the Central City Medical Group”, Shehnaz Alidina; Lili Beit; Michael Brown M.D., Harvard T. H. Chan School of Public Health

11/30/23 Class 5: System Integration, Data Information Exchange and Analytics in Healthcare

Learning Objectives

- **LO 01:** Know the purposes of an electronic health record and where it is necessary.
- **LO 02:** Identify key barriers to effective information exchange in healthcare and strategies to overcome these barriers.
- **LO 03:** Develop strategies to address the risks that need to be mitigated when implementing new technologies.
- **LO 04:** Create a solution to digital information-sharing obstacles.

Reading:

- John Glaser, “[The Evolution of Interoperability in Health Care](http://www.hhnmag.com/articles/7689-the-evolution-of-interoperability-in-health-care)”, Hospitals & Health Networks
<http://www.hhnmag.com/articles/7689-the-evolution-of-interoperability-in-health-care>
- Joshua R Vest, Larry D Gamm, “[Health Information Exchange: Persistent Challenges and New Strategies](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2995716/pdf/amiainl3673.pdf)”, J Am Med Inform Assoc 2010; Full-text available at:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2995716/pdf/amiainl3673.pdf>
- “[Connecting Health and Care for the Nation: A 10-Year Vision to Achieve an Interoperable Health IT Infrastructure](https://www.healthit.gov/sites/default/files/ONC10yearInteroperabilityConceptPaper.pdf)” The ONC for Health Information Technology;
<https://www.healthit.gov/sites/default/files/ONC10yearInteroperabilityConceptPaper.pdf>
- Discuss: Case Study 3: “Carolinias Healthcare System: Consumer Analytics”. John A. Quelch; Margaret Rodriguez, Harvard Business School

12/07/23 Class 6: Supporting Innovation in Healthcare

Learning Objectives

- **LO 01:** Understand the complexities of protecting data while enabling its use in research & clinical practice
- **LO 02:** Understand the uses of data in healthcare information technology.
- **LO 03:** Explore the risks and challenges of data privacy, security and interoperability
- **LO 04:** Understand the threat landscape and what practices are being used to protect healthcare organizations against them

Reading:

- Textbook, Chapters 12 & 13
- Regina E. Herzlinger, "[Why Innovation In Health Care Is So Hard](https://hbr.org/2006/05/why-innovation-in-health-care-is-so-hard)", Harvard Business Review;: <https://hbr.org/2006/05/why-innovation-in-health-care-is-so-hard>
- Emme Deland, MBA et al., "[Four Challenges of Launching a Telehealth Program](http://catalyst.nejm.org/challenges-launching-telehealth-program/)", New England Journal of Medicine – Catalyst Blog Post; : <http://catalyst.nejm.org/challenges-launching-telehealth-program/>
- Adi Gaskell, "[Building A Culture Of Innovation In Healthcare](https://www.forbes.com/sites/adigaskell/2016/11/08/building-a-culture-of-innovation-in-healthcare/#57bba0b44a74)", Forbes.com; <https://www.forbes.com/sites/adigaskell/2016/11/08/building-a-culture-of-innovation-in-healthcare/#57bba0b44a74>
- Adi Gaskell, "[The Collaborative Nature Of Healthcare Innovation](https://www.forbes.com/sites/adigaskell/2017/06/19/the-collaborative-nature-of-healthcare-innovation/#90b1e7879ad2)", Forbes.com; : <https://www.forbes.com/sites/adigaskell/2017/06/19/the-collaborative-nature-of-healthcare-innovation/#90b1e7879ad2>
- Discuss: Case Study 4: "Innovating Beyond Ochsner", Richard G. Hamermesh, Olivia Hull, Harvard Business School

12/14/23 Class 7: Group Presentations and Evaluating Investments in Information Technology

Learning Objectives

- **LO 01:** Evaluate an organization's need for a new IT solution.
- **LO 02:** Rate a cost-benefit analysis for an organization implementing a new IT solution.
- **LO 03:** Justify the need for a new healthcare IT solution to stakeholders.
- **LO 04:** Correlate patient outcomes and satisfaction to the measurement of return on investment (ROI) in healthcare IT.
- **LO 05:** Differentiate between the tangible and intangible value of healthcare IT.

Reading:

- Weill, P., & Aral, S. (2006). Generating Premium Returns on your IT Investments. *MIT Sloan Management Review*. Volume 47(2), 38-49.

NYU Brightspaces

All announcements, resources, and assignments will be delivered through the NYU Brightspaces site. The instructor may modify assignments, due dates, or other aspects of the course throughout the term. Notification of such modifications will be provided as soon as possible through the Announcements tool on the course website.

Academic Integrity

Academic integrity is a vital component of New York University and New York University's Robert F. Wagner Graduate School of Public Service. All students enrolled in this class are required to read and abide by *NYU Wagner's Academic Code*. All Wagner students have already read and signed the *NYU Wagner Academic Oath*. Plagiarism of any form will not be tolerated, and students in this class are expected to report violations to the instructor. Any student in this class who is unsure about course expectations or how to abide by the academic code, should immediately consult the instructor.

Henry and Lucy Moses Center for Students with Disabilities at NYU

Academic accommodations are available for students with disabilities. Please visit the *Moses Center for Students with Disabilities (CSD)* website and click on the *Reasonable Accommodations and How to Register* tab or call or email CSD at (212-998-4980 or mosescsd@nyu.edu) for information. Students who are requesting academic accommodations are strongly advised to reach out to the Moses Center as early as possible in the semester for assistance.

NYU's Calendar Policy on Religious Holidays

NYU's Calendar Policy on Religious Holidays states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious obligations. Please notify your instructor in advance of religious holidays that coincide with assignment due dates or exams to arrange mutually acceptable alternatives.

Class Policies

Attendance

You are required to attend all sessions. Any absence must be explained and justified beforehand, or your participation grade will be lowered.

Late Assignments

Extensions will be granted only in case of an emergency, out of respect for those who abide by deadlines despite hectic schedules. Late submissions without prior permission will be penalized by $\frac{1}{2}$ a letter grade per day (e.g., B+ to B).