**Course Description:**
Present day healthcare relies on the sharing of health information across clinical information systems, integrated hospital and primary care information systems and regional health information systems. We will look at the collection, use, storage and retention of health data; flow of data and health information across the care continuum; data quality frameworks; the uses and users of health data and health information; and the management of health information through its lifecycle. Other aspects of complex health information systems will be explored including security and privacy of health information, change management, adoption of innovation and new technologies, and organizing effective project teams. Prerequisites: MHI4100F/9100F/HIS9200F: Introduction to Health Informatics.

**Course Goal**
To appreciate the complexities involved in transforming data into information and knowledge for decision making. To understand the management of health information through its lifecycle. To look critically at examples of health information systems and analyze the data, data flows, technology, control and management issues involved (including security and privacy controls). To be familiar with principles of project management, change management and effective teams that are involved in implementing and using integrated health information systems. To understand the central role of health information management in quality assurance and performance improvement, planning and management of resources, risk management, disease surveillance, research and education.

**Course Objectives**
Upon the completion of the course, the students should:

1. Understand the principles of good information governance.
2. Have a general understanding of records and information management principles and practice.
3. Understand the data to information to knowledge continuum and appreciate the complexity of transforming data into information and knowledge.
4. Appreciate the different uses and users of health data and information within the health care system in clinical care, disease surveillance, research, policy, management and decision making.
5. Understand the importance of data quality on users and uses of data and information across the health care continuum and data quality management principles and organizational best practices for maintaining data quality.
6. Appreciate the different venues in which data are collected in Canada (e.g., acute, rehabilitation, cancer care, chronic disease management, primary care, mental health, and community, residential and ambulatory levels of care, continuing, long term).
7. Appreciate the different classification and data abstraction systems in Canada including acute care, rehab, primary care, mental health, and community care (e.g. rehabilitation (FIM-FRGs), mental health (DSM IV TR or V), home care, cancer care (ICD-O), International Classification of Functioning, Disability and Health (ICF), and primary care (ICPC 2).
8. Understand current regulations regarding security, privacy and confidentiality of health data.
9. Understand general principles of project and change management, in particular with regard to implementing an integrated clinical or health information system.
10. Understand how teams and teams of leaders can be used effectively to implement change within an organization or across multiple organizations or agencies.

**Evaluation:**
Evaluation will be based on four written assignments, a team project and participation in class and in the Forum on OWL.
Written Assignments:

Assignment #1
Information Governance 15%
Define what is meant by “information governance.” Outline the general principles within information governance for a health care organization and what policies, procedures, facilities (people and/or technology) are needed. What barriers may exist to the implementation of a robust governance framework? What are the implications of not having an information governance policy in place?
Assignment due by Monday, Jan 29, 2018 by 5 p.m.

Assignment #2
Data Flows Within the Health System 20%
Using the clinical scenario provided, describe the type of data that would be collected at each stage and model the data flow across the encounters and systems described. Discuss what type of technology might be used to facilitate collection and exchange of the data and information across the continuum of care. What considerations must be kept in mind and put in place to facilitate this (e.g. data standards, technology standards, policies on information sharing, privacy, confidentiality, etc.)?
Assignment due by Friday, Feb 16, 2018, by 5 p.m.

Assignment #3
Security, Privacy and Confidentiality of Health Data – Policies and Procedures 25%
Provide a definition (with appropriate references) for each of the terms: security, privacy, and confidentiality. In this assignment you are asked to develop the policies and procedures that address the use of, and access to, health data for a group of students working within a health facility. You will need to consider issues related to authorized use and access, necessary training, and security safeguards. Your final written assignment should include your final recommendations for the facility’s policy and for their procedures. Within the latter you may include any documentation to assist in rolling out these new policies and procedures.
Assignment due by Monday, March 12, 2018 by 5 p.m.

Assignment #4
Team Work / Team Project 30%
During the term all members of the class will participate in the development of a project (an HIM blog, a health app, a white paper or professional practice brief) within the field of health information management. Possibilities will be discussed in class and an appropriate assignment determined by January 22. At the end of the term each team will present their final project (as a group effort) and each student should provide a brief summary and overview of what they contributed to the project. (20%) Additional material will be distributed in class that can be used to report on team effectiveness and team building. (10%)
Final project due by Monday, April 2, 2018.

Participation 10%
In class participation and forum discussion will be considered in the mark.
Learning Resources:
Course notes are found online in Sakai-OWL and include a list of objectives, notes, suggested readings, and further instructions for your written assignments.

Readings:
There is no required text for the course, but I would recommend that you use the Canadian text “Fundamentals of Health Information Management” (HIM); the second edition was published in 2013 and “The Canadian Health Information Management Lifecycle” published in 2017 through CHIMA. Several other books on health information management and health informatics are available but deal either with the American health care system or approach the subject with a medical informatics emphasis. There are a number of excellent health informatics and HIM journals, many available online, and journal articles that supplement the course notes will be posted to the Sakai-OWL course site for download. A variety of sites related to the field of health information management and health informatics are also listed below.

Fundamentals of Health Information Management, Second Edition
Eds. Kelly Abrams and Candace Gibson
Canadian Health Information Management Association (CHIMA)
CHA Press, 2013
(indicated as HIM in the course outline reading list)
The definitive text on health information management in Canada.

The Canadian Health Information Management Lifecycle
Eds. Kelly J Abrams, Shirley Learmonth and Candace J Gibson
Canadian Health Information Management Association (CHIMA)
(indicated as Lifecycle in the course outline reading list)
Published through Lulu Publishing Services, 2017.

Two American texts that you may find useful and that will be available through the reference desk of the library.

Health Information: Management of a Strategic Resource, Fifth Edition
Eds. Mervat Abdelhak and Mary Alice Hanken
Elsevier, St. Louis, Missouri, 2016
(indicated as HI in course outline reading list)

Health Information Management: Concepts, Principles, and Practice, Fourth Edition
Eds. Kathleen M. LaTour, Shirley Eichenwald Maki, & Pamela K. Oachs
AHIMA, Chicago, Illinois, 2013
(indicated as LaTour in course outline reading list)

Journals

BMC Medical Informatics and Decision Making
(link from UWO library e-journals)

Electronic Healthcare

Health Information Management and Communications Canada
http://www.healthcareimc.com/

JAHIMA (Journal of the American Health Information Management Association)
http://journal.ahima.org/
Canadian Organizations

CHIMA (Canadian Health Information Management Association)
http://www.echima.ca

CIHI (Canadian Institute for Health Information)

Digital Health (formerly COACH - Canada’s Health Informatics Association)
https://digitalhealthcanada.com/

Infoway (Canada Health Infoway)
http://www.infoway-inforoute.ca/

American Organizations

AHIMA (The American Health Information Management Association)
http://www.ahima.org

AMIA (American Medical Informatics Association)
http://www.amia.org/

HIMSS (Healthcare Information and Management Systems Society)
http://www.himss.org/ASP/index.asp

International Organizations

IFHIMA (The International Federation of Health Information Management Associations)
http://www.ifhima.org/

IMIA (The International Medical Informatics Association)
http://www.imia.org
**MHI 4110G/9110G – Health Information Management – Course Outline:**
Weekly two-hour lecture – Mondays, 3:30 – 5:30 pm, HSA H410
Course Instructor: Candace Gibson, PhD, CHIM

*HIM* text book readings from “Fundamentals of Health Information Management.” Additional pertinent readings will be provided online through OWL or as handouts during class. Class schedule (day and time) will be confirmed at our first meeting.

<table>
<thead>
<tr>
<th>Week</th>
<th>Material Covered</th>
<th>Readings</th>
<th>Web Resources</th>
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<tbody>
<tr>
<td><strong>Health Information Management: Introduction and Overview</strong></td>
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</table>
| 1 Jan 8 | Module 1 Health Information Management Introduction & Overview  
- HIM – Definition  
- HIM Professionals  
- Health Records and Health Information Management Lifecycle | *HIM*  
Ch. 2 – The Health Information Management Profession  
Ch. 7 – Health Information Management Lifecycle  
*HI*  
Ch. 2 – The Health Informatics and Health Information Management Profession  
LaTour Ch. 3 – The Health Information Management Profession | CHIMA – [http://www.echima.ca](http://www.echima.ca)  
Canada Health Infoway - [https://www.infoway-inforoute.ca/](https://www.infoway-inforoute.ca/) | |
| **Information Governance** | | | |
| 2 Jan 15 | Module 2 Information Governance Framework  
- Information Governance versus Data Governance  
- Enterprise Information Management  
- Planning and evaluation  
- Information sharing agreements | *Lifecycle*  
Overview of Canadian Health Information Management Lifecycle  
Stage 1: Health Information Management Planning & Stage 7: Evaluation  
*HIM* Ch. 7 – Health Information Management  
*HI* | CHI - See CHI white paper on “Information Governance” in Readings  
AHIMA Resources on Information Governance - [http://www.ahima.org/topics/infogovernance](http://www.ahima.org/topics/infogovernance) |
| 3 Jan 22 | Module 3 | What is a health record?  
- What is a health record?  
- The Legal Health Record  
- Uses of the Health Record  
**Principles of Record & Information Management**  
- Data Collection  
- Data Organization & Maintenance  
- Data Protection  
- Retention & Disposition  
- Destruction of Health Data  
- Evaluation  
**Lifecycle**  
Overview of Canadian Health Information Management Lifecycle  
Stage 1: Health Information Management Planning & Stage 3: Organization  
**HIM**  
Ch. 7 – Health Information Management  
Ch. 15 – Legal Aspects of Health Information Management  
**LaTour**  
Ch. 10 – Content and Structure of Paper and Hybrid Records  
Ch. 11 – Electronic Health Records: Application in Practice  
Ch. 12 – Legal issues in HIM  
Ch. 13 – Ethical Issues in HIM  | CHIMA – [http://www.echima.ca](http://www.echima.ca)  
Canadian Patient Safety Institute – [http://www.patientsafetyinstitute.ca/English/Pages/default.aspx](http://www.patientsafetyinstitute.ca/English/Pages/default.aspx) |  

| 4 Jan 29 | Module 4 | Health System Use of Data  
- Review – Uses and Users of Health Data  
- Primary versus Secondary Use  
  → Health System Use  
**HIM**  
Ch. 4 – Principles of Data and Health Information Management  
Ch. 7 – Health Information Management  
Ch. 13 - Secondary Uses of Health Data and Health Databases  
**LaTour**  
See “Health” databases  
AHIMA – [http://www.ahima.org](http://www.ahima.org)  
CIHI – [http://www.cihi.ca](http://www.cihi.ca) |
### Data Flows within Health Care

- Looking at the ‘continuum of care’
- Collect once, use many times – what do we need?

### Workflow Analysis

<table>
<thead>
<tr>
<th>Module 5</th>
<th>Data Governance</th>
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<tbody>
<tr>
<td><strong>Data</strong></td>
<td><strong>Information</strong></td>
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<tr>
<td>Continuum</td>
<td>Flow</td>
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<tbody>
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<td>• Collect once, use many times – what do we need?</td>
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<tr>
<th>Week of Feb 19 – 23</th>
<th>Module 6</th>
<th>Data Collection, Quality &amp; Integrity</th>
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<tbody>
<tr>
<td><strong>Data Assets</strong></td>
<td><strong>Data</strong></td>
<td><strong>Information</strong></td>
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<tr>
<td>Types of data; data and information collection formats</td>
<td>Flow</td>
<td>Continuum</td>
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<tr>
<td>Data Quality Frameworks</td>
<td>• Dimensions of data quality</td>
<td>Flow</td>
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<tr>
<th>Lifecycle</th>
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<tr>
<td>Stage 2: Data Collection, Capture and Receipt</td>
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<tr>
<td>Ch. 4 – Health Data Concepts and Information Governance</td>
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<td>Ch. 5 – Clinical Classifications, Terminologies and Nomenclatures</td>
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<tr>
<td>Ch. 7 – Classification Systems, Clinical Vocabularies, and Terminology</td>
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<td>Ch. 8 – Health Informatics Standards</td>
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<tr>
<td>Ch. 15 – Clinical Classifications and Terminologies</td>
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<tr>
<th>Week of Feb 19 – 23</th>
<th>Reading Week</th>
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AHIMA – [http://www.ahima.org](http://www.ahima.org)
CIHI – [http://www.cihi.ca](http://www.cihi.ca)
Patient Demographic Data Quality Framework - [https://www.healthit.gov/playbook/pddq-framework/](https://www.healthit.gov/playbook/pddq-framework/)
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<th>Module</th>
<th>Date</th>
<th>Description</th>
<th>Lifecycle</th>
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<tr>
<td>7</td>
<td>Feb 26</td>
<td>Module 7 Security, Privacy &amp; Confidentiality of Health Data</td>
<td>Stage 4: Access, Use, and Disclosure</td>
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<td>- Technical, legal and ethical aspects of health information management</td>
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<td>Ch. 15 - Legal Aspects of Health Information Management</td>
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<td>Ch. 16 - Privacy, Confidentiality, Access and Release of Personal Health Information</td>
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<td>Ch. 17 - Ethical Aspects of Health Information Management and Professional Practice</td>
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<td>Ch. 12 – Legal Issues in Health Information Management</td>
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<td>Ch. 13 – Ethical Issues in HIM</td>
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<td>8</td>
<td>March 5</td>
<td>Module 8 Maintenance, Retention, and Protection</td>
<td>Stage 5: Maintenance, Retention, and Protection</td>
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<td>Stage 6: Disposition / Destruction</td>
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<td>Ch. 15 – Legal Aspects of Health Information Management</td>
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<td>9</td>
<td>March 12</td>
<td>Module 9 Evaluation of Health Data and Health Information Systems</td>
<td>Stage 7: Evaluation</td>
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<td>Ch 18 – Quality &amp; Utilization Management</td>
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<td><strong>HIMSS Analytics</strong></td>
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<td>(see the EMR Adoption model)</td>
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| 10 March 19 | Module 10 | Implementation of Integrated Health Information Systems for Health Care | - Project management/change management  
- Phases of Implementation  
- Adoption of new technologies  
- Factors for success  
- Barriers to implementation  
| 11 March 26 | Module 11 | Introduction to Teams and Teams of Leaders                          | - Working on Teams within organizations and across organization  
- Summary of teams/leadership – in presentations throughout the term  
HIM Ch. 20 – Introduction to Leadership  
LaTour Ch. 23 - Managing and Leading During Organization Change  
Ch. 27 – Project Management  
Ch. 29 – Strategic Thinking: Strategic Management and Leading Change  
Project Management Institute - http://www.pmi.org/  
| 12 April 2 & 9 | Module 12 | Presentation of Team Project(s)                                      | HIM Ch. 20 – Introduction to Leadership                                                                 |

Putting Integrated Health Information Systems in Place – Change Management, Project Management, Leadership