

**MASTER  
OF HEALTH  
INFORMATICS  
WEBINAR**

# WHAT TO EXPECT TODAY

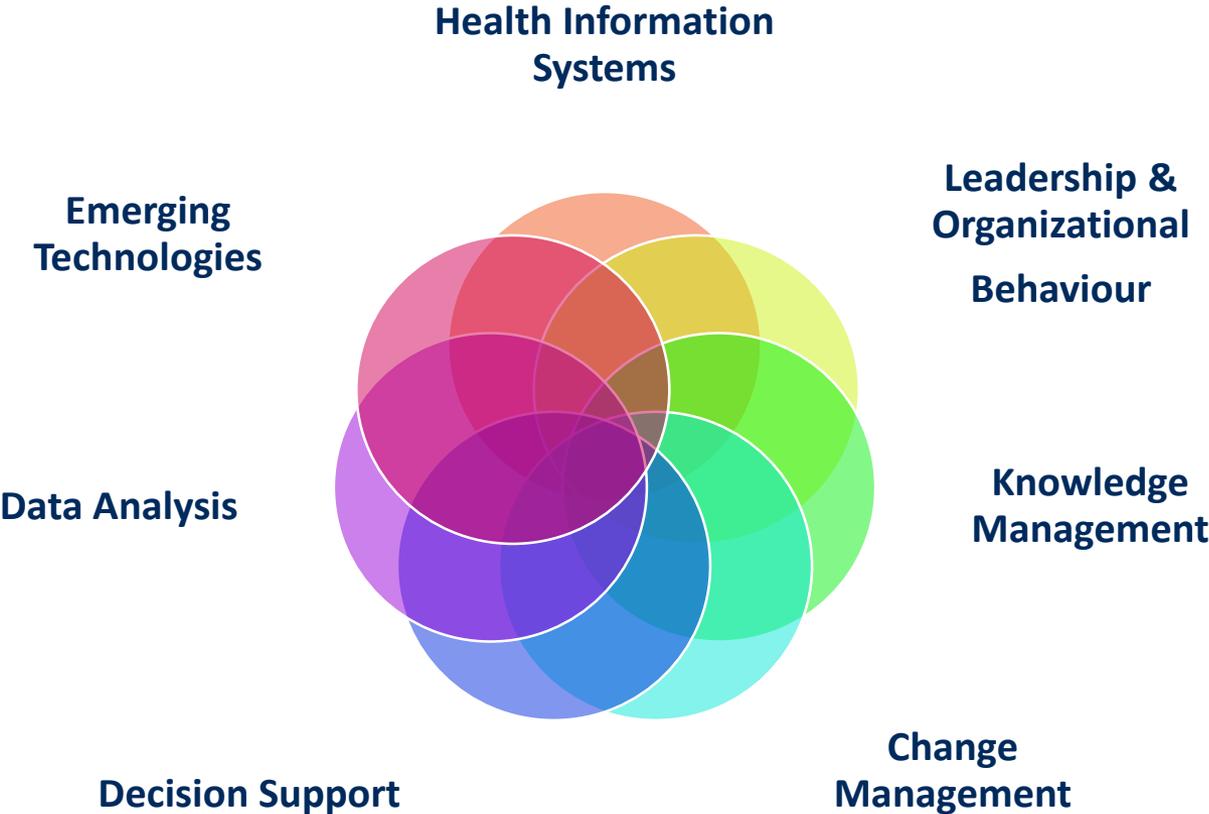
1. What is the advantage of MHI?
  - The network
  - Critical thinking
2. What do I gain in terms of career?
  - Fit for select positions
  - Compensation
3. How does MHI work?
  - The program
    - MHI & Executive MHI
  - The application

# **WHAT IS HEALTH INFORMATICS**

Health informatics is the interdisciplinary study of the design, development, adoption and application of information technology (IT) – based innovations in healthcare services delivery, management and planning.

As defined by the U.S. National Library of Medicine, Jan 7 2014  
[www.himss.org/health-informatics-defined](http://www.himss.org/health-informatics-defined)

# MHI HEALTH INFORMATICS FOCUS



- 1 Advantage

# WHY UNIVERSITY OF TORONTO?

Maclean's magazine's annual 2016 ranking at #1

“The influencers participating in the study named a U of T degree as the ‘highest quality’ of all universities surveyed in Canada and its students as the No.1 ‘leaders of tomorrow.’

U of T has done well this year in several international rankings:

- 21st on this week's *U.S. News & World Report* rankings
- 22nd on the prestigious Times Higher Education (THE) annual rankings of the top universities in the world”
  - [UofT Bulletin: Macleans Lauds UofT, Oct 26, 2016.](#)

Institute of Health Policy, Management and Evaluation (IHPE) within Dalla Lana School of Public Health – a top-ranked network at our fingertips–

- Access to health leaders for instruction & practicum placements
- Home to acclaimed researchers and educators
- Curriculum development to meet healthcare market needs

# MHI HEALTH INFORMATICS PROFESSIONALS

Well-positioned at the nexus of healthcare's clinical, business, administrative and patient systems:

- Develop strategy, create policy and make high-level decisions
- Contribute system analysis, solution architecture and project management
- Facilitate the development, implementation and management of technological applications and change

# WHY ARE WE HERE?

MHI enables professionals to build health informatics careers across a full spectrum of organizational, clinical and technology domains, structures and systems in healthcare.

MHI allows a return on your educational investment by offering a professional pathway within a high-demand arena.

- Build critical thinking skills and professional network
- Breadth and depth of knowledge to position well in specialized market.

**Health informatics is our shared way to make a difference in healthcare.**

# YOU AND MHI?

**Q:** What personality traits are best for the field?

**A:** You see the sharing and use of information as enabling and transformative within healthcare.

You have embraced the promise and recognized the challenges of informatics within healthcare.

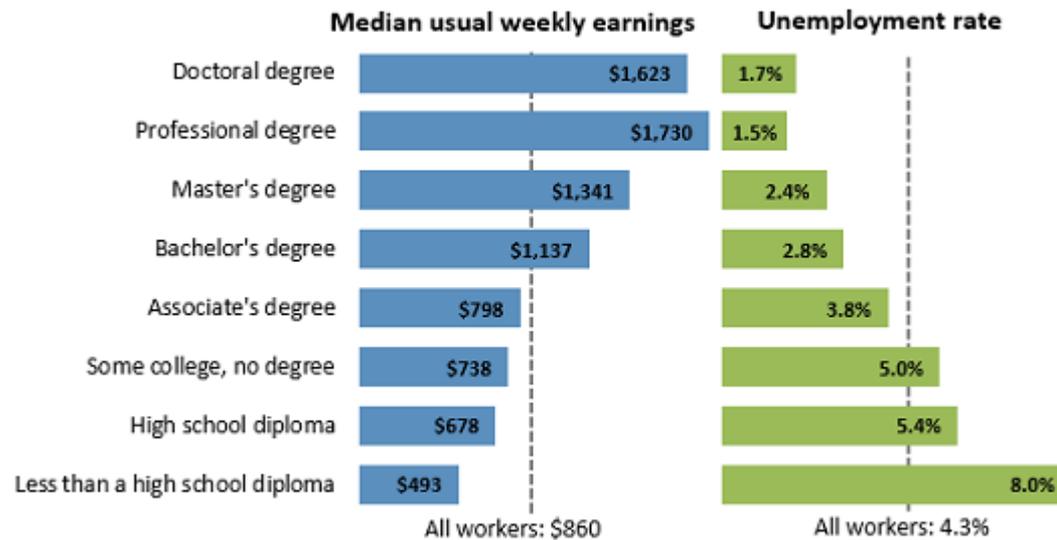
As a topline, you demonstrate

1. Excellent critical thinking, analysis and communication skills
2. Orientation toward achievement, collaboration, facilitation, and leadership
3. Capacity for systems thinking, change management, and an aptitude for strategy

- 2 Career Gain

# PROFESSIONAL/MASTER'S DEGREE PROSPECTS

Earnings and unemployment rates by educational attainment, 2015



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.  
Source: U.S. Bureau of Labor Statistics, Current Population Survey

[http://www.bls.gov/emp/ep\\_chart\\_001.htm](http://www.bls.gov/emp/ep_chart_001.htm)

**Professional Roles at  
'High Risk' of Skills Shortage**

	Low Investment Scenario	Moderate Investment Scenario	High Investment Scenario
Senior IT Management			
Architecture			
Application Implementation and Support			
Security			
Quality Assurance and Testing			
Privacy			
Standards			
Data Quality Management			
Information Governance			
Risk Management			
Business Analysis			
Change Management			
Project Management			
Analysis and Evaluation (Data Analytics roles)			
Senior Clinical Information			
Clinical Analysis			

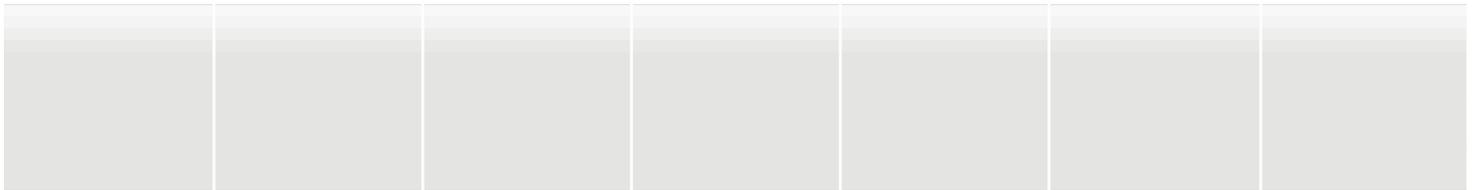
# COACH HUMAN RESOURCES OUTLOOK 2014 – 2019

## Estimated Health Informatics and Health Information Management Employment in 2014 and Projected Five-Year Hiring Requirements, 2014 to 2019

	Information Technology	Health Information Management	Other Professional Roles*	Total
<b>2014 Estimated Employment</b>	20,500	5,700	13,700	39,900
<b>Five-Year Replacement Demand</b>	2,581	718	1,724	5,023
<b>Five-Year Growth Demand:</b>				
Low Investment Scenario	670	406	62	1,138
Moderate Investment Scenario	2,007	723	815	3,545
High Investment Scenario	4,145	1,224	1,817	7,186
<b>Five-Year Hiring Requirements (Sum of Replacement Demand + Growth Demand)</b>				
Low Investment Scenario	3,251	1,124	1,786	6,161
Moderate Investment Scenario	4,588	1,441	2,539	8,568
High Investment Scenario	6,726	1,942	3,541	12,209

\* Other Professional Roles: Canadian Health System Management and Administration, Organizational and Behavioural Management, Project Management, Analysis and Evaluation, and Clinical Informatics.

IATION



# CAREER PATHWAYS

**Q:** What settings are typical for MHI graduate jobs?

**A:** The MHI career can be built in a variety of settings. Students are generally placed within career track settings in 4-6 months post-grad, if not sooner.

Hospital / Agency (e.g., CCO, OTN, HQO)



Consulting (e.g., KPMG, Telus, Deloitte)



Specialist Roles & Private Sector



- 3 Program

**TWO OPTIONS: ONE DEGREE**

**MHI & EMHI**

# MHI

For candidates seeking to transform career to HI focus.

- 16 month program
  - September to December the next year
  - Full time over 4 consecutive semesters
  - 5 half courses per semester
  - 4 month practicum placement:
    - Clinical
    - Technical
    - Analytical
    - Business Intelligence
- Practicum is 16 hours/ 35 per week x 16 weeks in summer semester:
  - Hospitals
  - Health research organizations
  - Government and government agencies
  - Consulting firms
  - Planning bodies
  - Information and communication technology vendor organizations
  - Pharmaceutical firms
  - Medical device manufacturers
  - Integrated delivery systems
  - Community-based agencies

**Q:** Am I able to work while completing MHI? What is the workload?

**A:** We recommend no more than 10 -15 hours per week.

**Q :** Are practicum placements guaranteed? Are they paid?

**A:** Some students initiate their own opportunities, and the course instructor develops the practicum structure. A stipend is suggested. Practicum placements are paid up to \$16k, however 20+ are unpaid.

# EMHI

## Executive Stream

For candidates seeking to refine HI career direction, with credentials.

22 month program

- Modular format
- Approx. 12h classes every 3-4 weeks
- 400 hour project to be supported by candidate's employer

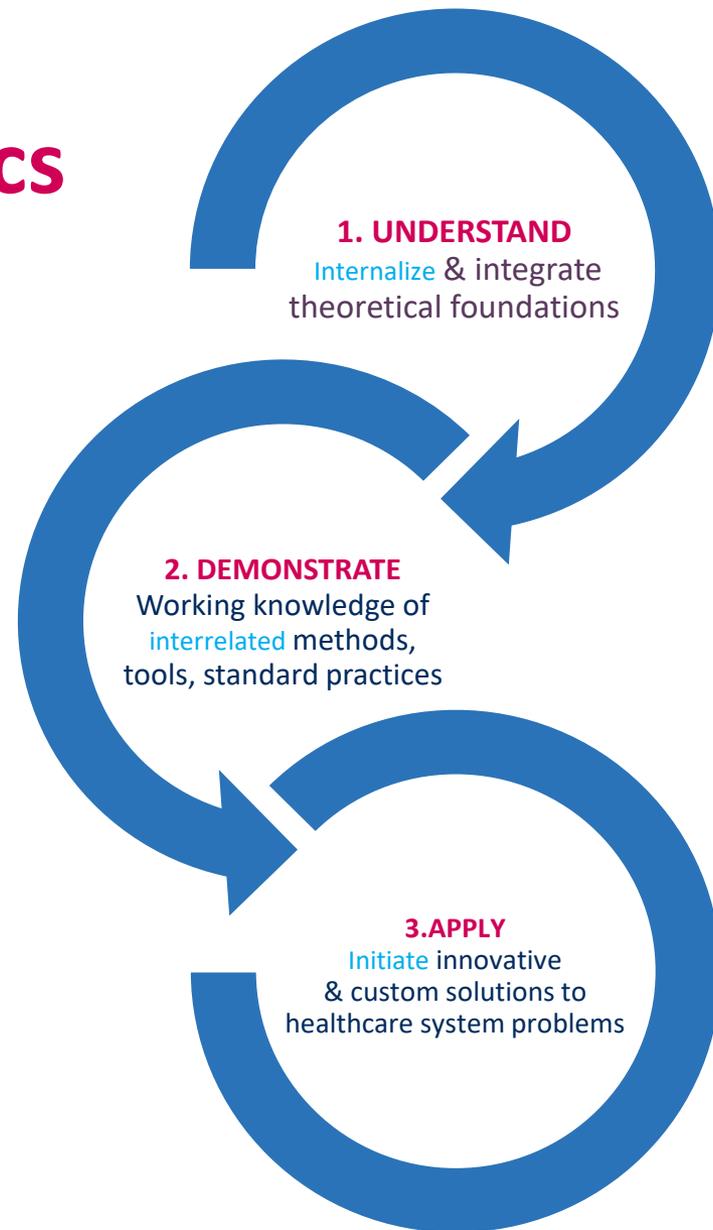
**Q:** Do I need a project before I apply?

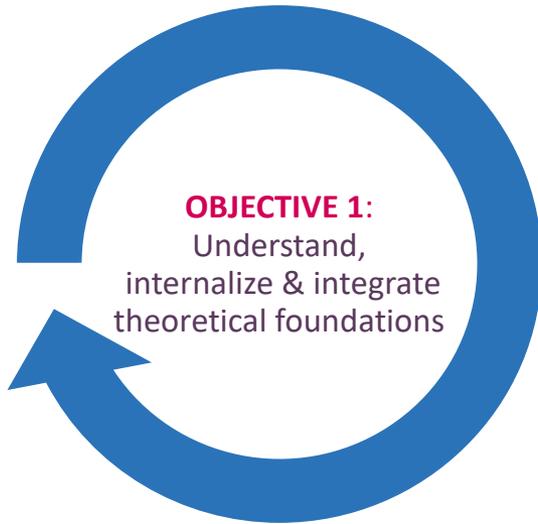
**A:** No, but you need general support from your employer. We develop the project together.

**Q:** How is the workload?

**A:** In addition to the modular format, students make time for group work and 2 courses that run weekly (evenings). The workload is heavy but students report it as manageable.

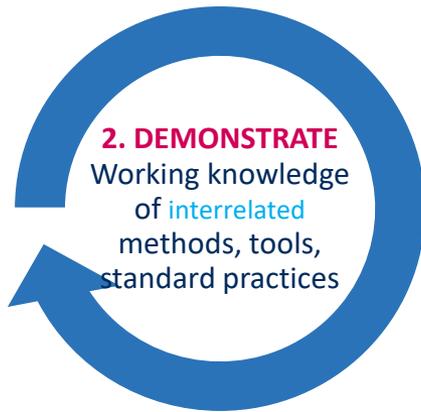
# MHI OBJECTIVES of Health Informatics





Map breadth and depth of health informatics to build a base of theoretical and practical understanding.

- MHI1001H : ICT in Health Care
- MHI1002H: Complexity of Clinical Care
- MHI2001H: Health Informatics I
- INF1003H: Information Systems, Services and Design
  - Critical analysis of the design fabrication, deployment, use and maintenance of information systems and services.



### INF1341H: Analyzing Information Systems

- Mediate among system developers, business managers, clinical/health users.

### MHI2002H: Health Informatics II

- Applications, vocabulary and standards, organizational, ethical, legal issues.

### MHI2007H: Quantitative Methods + INF2183H: Knowledge Management and Systems

- Create, manage and transfer information and knowledge from data to meet health care organizational needs.

### MHI2003H: Consumer and Public Health Informatics

- Studies and methods on making information accessible to consumers, with an overlap on public health informatics.



### MHI2004H: Human Factors and Change Management

- Techniques and issues relevant to HI adoption in complex environments

### MHI2008H: Project Management

- Develop capacity for solution architecture

### MHI2005Y: Health Informatics Practicum (MHI only)

- Placements onsite.

### MHI2015Y: Health Informatics Project (EMHI only)

### HAD5010H: Canada's Health System and Policy I

- critically analyze key issues and trends in Canada's health care system

### Advanced Topics

- Generalize skills across multiple contexts through assessment, design and critical evaluation of e-health innovations (MHI2009H); strategic frameworks (MHI2006H), performance measurement (HAD5726H) and one elective

# MHI

## GRADUATE

## COMPETENCIES

Knowledge of healthcare delivery policies and systems that translates to -

- Ability to facilitate information to ensure patient/consumer privacy and confidentiality, improve processes, and enhance outcomes
- Skill at contributing to developing HI infrastructure
- Ability to design and implement processes for acquiring and analyzing data
- Aptitude in evaluating the quality of health information services and systems, classification systems, technology and business systems
- Skill at analyzing data, producing information and transferring knowledge to meet needs of clinicians, managers and decision makers
- Ability to critically analyze systemic, organizational and cultural issues associated with implementation of initiatives across domains
- Skill at managing change within diverse communities
- Ability to provide leadership and articulate ideas with strong communications skills

# APPLICATION QUESTIONS?

**Q:** Do I need healthcare and information technology in my background?

**A:** Ideally, but it is alright to be very strong in one area and have less experience in another.

**Q:** Is there a lot of IT coding/programming involved? Do I need to know how?

**A:** MHI is an academic program and not a space for technical training. Knowledge is an asset, but the program is more focused on building critical thinking and management ability at a systems level.

**Q:** What is the cost?

**A:** Tuition for MHI & EMHI is identical. It is currently at ~\$14K total.

**Q:** Do both of my reference need to be academic?

**A:** If they are not, contact the Graduate Assistant after applying to notify.



# Applications Open Now

VISIT

<http://ihpme.utoronto.ca/academics/pp/mhi/>

TO APPLY

<http://ihpme.utoronto.ca/community/students/apply/>

ADMISSIONS QUESTIONS?

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# Learn More?

## **HEALTH INFORMATICS RESEARCH**

**MSc Health Services Research**

**PhD Health Services Research**

## **MASTER OF HEALTH INFORMATICS**

**MHI Professional Program**

**MHI Executive Professional Program**



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UNIVERSITY OF TORONTO