Micro-Credential on Cybersecurity for Medical Devices Program

Introduction

The **Canadian College for Healthcare and Pharmaceutics** offers a **Micro-Credential on Cybersecurity for Medical Devices** program designed to equip healthcare professionals with essential skills to ensure the safety, security, and regulatory compliance of medical devices. This program covers four key modules, providing a comprehensive approach to cybersecurity for medical devices.

Who Should Take the Course

This program is suitable for:

- Physicians, MD, & Medical students
- Nursing (BScN), RPN & Nursing students
- Pharmacists or Pharmacy students
- Medical Laboratory Technicians
- Individuals with a background in Computer Science, Informatics, or software engineering (bachelor's or above)
- Mixed Disciplinary Majors (Informatics or Computational fields)

Minimum Requirement: Ontario Secondary School Diploma (OSSD) with Grade 12 English (C or U) and Mathematics (C, M, or U) or equivalent.

Program Specialty

The program emphasizes robust cybersecurity practices for medical devices, addressing the critical need for healthcare professionals to manage cybersecurity risks, threat modeling, and integrating security measures throughout the lifecycle of medical devices. Participants will learn to navigate industry regulations, apply frameworks like NIST and ISO, and advocate for cybersecurity within their organizations.

Program Outline

The program consists of four modules:

1. **Introduction to Cybersecurity**: Basics of the internet, web, Wi-Fi, history of cybersecurity, common threats, and psychological profiling.

2. **Identity and Access Management**: Cloud computing, secure coding, and digital forensics.
3. **Data Security and AI Security**: Authentication protocols and intrusion detection systems.
4. **Application and Infrastructure Security**: SQL injection, phishing prevention, firewall design, and penetration testing.

Learning Outcomes

Participants will gain expertise in managing cybersecurity risks, threat modeling, and integrating security measures throughout the lifecycle of medical devices. They will also learn to navigate industry regulations and apply cybersecurity frameworks, enhancing their skills and contributing to the overall security maturity of their organization's medical devices.

Course Duration

- Instructor-led Zoom sessions on six weekdays – 4:00pm-10:00pm (27 hours)
- In-person – two Sundays (12 hours) from 9:30 am to 2:30 pm

Practicum Details

The program includes live learning sessions and workshops that incorporate practical, hands-on exercises. It combines both Knowledge-Based and Practice-Based Learning Activities to provide participants with current and practical information and instructions.

Funding

Information about funding options, scholarships, and financial aid for this program can be found on the college's website or by contacting the admissions office.

Upcoming Start Dates

The program has six intakes in 2025:

- **Intake 1**: January 19 – February 1
    - In-Person days: January 19 & January 26
    - Online days: January 22, 23, 25, 29, 30, February 1
- **Intake 2**: March 18 – March 30
    - In-Person days: March 23 & March 30
    - Online days: March 18, 19, 20, 25, 26, 27
- **Intake 3**: May 20 – June 1

    - In-Person days: May 25 & June 1
    - Online days: May 20, 21, 22, 27, 28, 29
- **Intake 4**: July 15 – July 27
    - In-Person days: July 20 & July 27
    - Online days: July 15, 16, 17, 22, 23, 24
- **Intake 5**: September 16 – September 28
    - In-Person days: September 21 & September 28
    - Online days: September 16, 17, 18, 23, 24, 25
- **Intake 6**: November 4 – November 16
    - In-Person days: November 9 & November 16
    - Online days: November 4, 5, 6, 11, 12, 13

Other Details

For more information about the program, including admission requirements, application process, and course fees, please visit the college's website or contact the admissions office.

FAQs

Q: What are the prerequisites for this program? A: The program is designed for healthcare professionals with a background in Computer Science, Informatics, or software engineering, or those with an Ontario Secondary School Diploma (OSSD) with Grade 12 English and Mathematics.

Q: How long is the program? A: The total duration of the program is 39 hours, divided into instructor-led Zoom sessions and in-person workshops.

Q: Are there any practical projects included in the program? A: Yes, the program includes practical, hands-on exercises during live learning sessions and workshops.

Q: What funding options are available for this program? A: Information about funding options, scholarships, and financial aid can be found on the college's website or by contacting the admissions office.

Would you like any additional details or modifications to the proposed content?