

Graduate EMBA - Cyber Security



Competency in cyber management is now a staple in every organization due to the increased dependence on data, the advancement of cyber-attacks, and the sophistication of security processes needed to defend those valuable data resources.

Cyber security managers need both cyber methodology knowledge and management skills to gain industry respect, a technical understanding of data protection, and to be able to appropriately prepare and manage security projects, incidents and initiatives.

At Ottawa University

As business models become more data-driven, the way in which organizations handle and defend data, as well as the computing infrastructures, are more important than ever. Therefore, the EMBA Cyber Security program covers a wide range of security topics across the entire security stack. The insights provided through data, and the protection of that data, are the most powerful tools in enabling businesses to perform well without data or funds lost – directly or indirectly – through cybercrime. Within the program, advanced knowledge in areas of data, network, host, application and user controls will be gained in conjunction with key management topics addressing the overall security lifecycle, including governance and technical controls focused on protecting, detecting and responding to security issues.

Careers

According to the Bureau of Labor Statistics (2020), by the year 2029 employment in related information security occupations is expected to increase by 31 percent. Cyber Security Analysts roles are expected to fare best among this group with an average entry-level salary of \$99,730 per annum. Positions that require cybersecurity expertise will consist of a vast array of job titles which include, but are not limited to: Security Analyst, Security Engineer or Architect, Security/IT Director or Manager, CISO/CSO, Systems Administrator, Network Architect or Engineer, Forensics Investigator, Auditor, Systems Engineer or Integrator. The EMBA Cyber Security program will provide the necessary framework to be prepared to excel within this career field.

Education and Qualifications

Industry trends show a demand for managers who understand, and can manage, cyber security. The EMBA Cyber Security program is for individuals interested in learning how to make sense of different cybersecurity frameworks, understand and analyze risk, and enable modern security architectures within the cloud infrastructure. With an additional focus on managerial skill-sets, the program prepares a manager to effectively oversee security projects while efficiently governing data within privacy and security regulations.



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MBA Prerequisites

A prospective student who has not satisfied the preparatory course requirements should take at least one undergraduate accounting course and one economics course with a minimum letter grade of "C" for each, or complete the MBA Math course. The prerequisite course(s) must be completed prior to enrolling in BUS 7500 Managerial Economics and BUS 7800 Management Accounting. Note that BUS 7500 and BUS 7800 are also prerequisite courses for the BUS 7600 Managerial Finance course. Your Enrollment or Academic Advisor will advise you about how to enroll in the MBA Math course should you require it.

Required Core Courses

BUS 7000 Organizational Behavior and Theory

Examines human behavior as it impacts the work organization. Includes theoretical foundations of motivation, group dynamics, leadership, decision-making, satisfaction and performance.

BUS 7200 Value Systems & Professional Ethics

Study of personal and corporate value systems and decision making. Investigation of personal beliefs, purposes and attitudes, and their effects on self and others. Examines the ethical dimensions of organizational structures and practices.

BUS 7500 Managerial Economics

Application of economic theory to managerial decision making. Emphasis on both quantitative and qualitative application of microeconomic principles to business analysis.

BUS 7600 Managerial Finance

Application of the theories and tools used in financial decision making. Topics include present value and capital budgeting, financial analysis and forecasting, market efficiency, and capital structure.

BUS 7800 Management Accounting

Explores use and application of accounting information for planning, control and decision making. Topics include cost analysis and allocation, budgeting, and behavioral aspects of accounting systems.

BUS 8500 Graduate Seminar: Business Policies and Strategies

Capstone course in which participants develop a major case study of business administration issues, programs and policies in a current organization. Draws from and utilizes concepts, theories, and skills developed in previous courses. Prerequisite: Completion of all core courses in the MBA program or approval of advisor.

Required Cyber Security Courses

CYB 7001 Fundamentals of Cyber Security

This course is an introduction to cyber security to understand current threats in the business world, identification of attacks and controls that need to be implemented. Students will learn the process of managing risk and the roles and responsibilities in the organization which support cyber security. Includes time in the Cyber Range Simulator.

CYB 7002 Offensive Security

In this course, students will be introduced to the attacker's perspective, understand the attack models and processes. Students learn about current security systems in the market focusing on end point security. Students will have the tools to understand corporate security and the process of vulnerability management by the end of this course. Includes time in the Cyber Range Simulator.

CYB 7003 Data Protection

Students will delve into cryptography concepts and available data protection solutions, cloud security technologies, project management processes and security methodologies. Privacy and security regulations that support asset protection are explored. Includes time in the Cyber Range Simulator.

CYB 7004 Incident Response

Students will explore the importance of SIEM (Security Information Event Management) and SOC (Security Operation Center) tools and the incident response processes. Business continuity processes, tools and DRP (Disaster Recovery Plan) solutions will be introduced. Students learn forensics techniques and the process of managing the cyber-attack. Includes time in the Cyber Range Simulator.

CYB 7005 Supply Chain Risk Management

Students are introduced to the supply chain risk management process, to equip them with the knowledge of concepts and methodologies to secure systems and data, control access and implement deception methods.

CYB 7900 Cyber Execution for Executives

Students will examine the use of computer information systems in business organizations with emphasis on how information technology supports business functions and aids managerial decision-making. Explores current trends and emerging technologies. Includes time in the Cyber Range Simulator.

Required Practicums

IT 8701-8702 Executive Practicum(s) - Core and Concentration

Students participate in a seminar led by a faculty member. Student is also required to be employed in a training position related to Cyber Security directly or cyber security processes. Coursework in the seminar is directly tied to the performance of activities of a regularly scheduled employee in operations and the student must complete a minimum of 80 contact hours with the employer during the practicum course. Completion of an applied project is required.