Boston University Metropolitan College
Graduate Degree and Certificate Programs
Hanscom Air Force Base, MA
Academic Year 2017 – 2018
Version 1.0 July 5, 2017
BOSTON UNIVERSITY METROPOLITAN COLLEGE

Metropolitan College (MET) is one of the seventeen degree-granting bodies that make up Boston University. The College’s special purpose is to serve the Boston metropolitan area, and since 1965 it has been focusing on the needs of working professionals. Boston University Metropolitan College is well known for its rigorous programs, some of which are offered at various military sites. By providing the highest quality credit courses in the evenings and on weekends, Boston University Metropolitan College offers opportunities for education, career advancement, and personal fulfillment to thousands of working adults who might not otherwise have the chance to take courses or earn degrees.

Military Programs

Programs Offered at Hanscom Air Force Base

Metropolitan College is proud to offer high-quality, intensive graduate-level programs at the Hanscom Air Force Base in Bedford, Massachusetts. The Master of Science in Leadership (MSL), the Master of Science in Computer Information Systems (MSCIS), the Master of Science in Computer Science (MSCS), and the Graduate Certificate in Project Management programs are offered utilizing a convenient alternate weekend format (or weeknights for the MSCS and MSCIS), with degree completion possible in as little as five semesters, or twenty months. Courses at Hanscom AFB are offered throughout the year—summer, fall and spring semesters.

All graduate courses and degrees at Hanscom AFB meet regional accreditation standards and have been effectively delivered at other military locations. Boston University is licensed to teach in Massachusetts.

Special Features of the Hanscom Air Force Base Military Location

A special advantage of the Hanscom Air Force Base model is its proximity to Boston University’s main campus on the Charles River. This allows students to take advantage of on-base services as well as those at the main campus. In addition, a Boston University staff member provides student support and administrative services on-site as part of the program design.

Another special feature of this model is that active duty military that are deployed or PCS and matriculated into a degree program may petition the Dean of BU’s Metropolitan College to take courses on-line or on the Boston campus and apply them to the Hanscom degree program. Please contact Boston University's Director of Military Programs at the base where you attend classes for additional details and the petition form.
Master of Science in Computer Information Systems (MSCIS)

The Master of Science in Computer Information Systems (MSCIS) is a graduate \textit{weeknight} (evening) program designed for students who wish to combine a technical competence in computer science and information systems with a knowledge of managerial and organizational issues. Students receive training in both modern management and the technology of computer systems.

- Boston University’s Metropolitan College is recognized by the NSA (National Security Agency) and the Department of Homeland Security as a National Center of Excellence in Information Assurance Education and Research
- Programs are certified by the Committee on National Security Systems (CNSS)
- Students can qualify to earn the CNSS-4011 and CNSS-4013 certifications
- Students have access to BU’s Center for Reliable Information Systems and Cyber Security (RISCS) research consortium

Master of Science in Leadership (MSL)

The Master of Science in Leadership (MSL) is a graduate \textit{weekend} program designed for leadership excellence in the twenty-first century. Whether you are in command of a mission or in charge of personnel in a civilian organization, leadership is an essential quality in building loyalty, trust, and teamwork. Successful leadership involves setting the right objectives, communicating strategies and ideas, and executing projects successfully.

Students in the Master of Science in Leadership program offered the following program description:

**Vision:** Provide an intellectually challenging environment to develop professional skills for career advancement.

**Mission:** Advance leadership wisdom to prepare students for a dynamic business environment through education.

**Slogan:** “Shaping the leaders of tomorrow.”

Master of Science in Computer Science (MSCS)

Boston University introduced the Master of Science in Computer Science (MSCS) graduate degree program, a graduate \textit{weeknight} (evening) program, designed for computer professionals and those who intend to move into the computer field from other areas of study.

- Boston University’s Metropolitan College is recognized by the NSA (National Security Agency) and the Department of Homeland Security as a National Center of Excellence in Information Assurance Education and Research
- Programs are certified by the Committee on National Security Systems (CNSS)
- Students have access to BU’s Center for Reliable Information Systems and Cyber Security (RISCS) research consortium
Graduate Certificate in Project Management (GCPM)

The Graduate Certificate in Project Management (GCPM) is a four-course certificate offered at Hanscom AFB on weekends. It is an excellent option for students who seek professional advancement without committing to a degree program, or for those who may already have an advanced degree and seek to enhance their knowledge and skills. The GCPM may be applied toward the MS Leadership degree program at Hanscom, the MS Administrative Studies (MSAS) degree program offered in Boston, or the MS Project Management (MSPM) degree program offered in Boston or online. Application to the MSAS or MSPM degree programs should be made online or through the main campus in Boston.

Admission Requirements

Degree and certificate programs are available to all qualified men and women who have earned a bachelor's degree from a regionally accredited college or university. Programs are available to active duty military personnel, their dependents, and Department of Defense employees or contractors. No particular undergraduate course of study is required for admission.

You may apply online to any of the degree or certificate programs by visiting the MET admission site, [www.bu.edu/met/admissions/apply-now](http://www.bu.edu/met/admissions/apply-now)

Completed admission application packages for the Hanscom-based MS Leadership degree, MSICS degree, MSCIS degree, or the Project Management graduate certificate programs, with the $85 application fee should contain:

- A completed application form
- A self-evaluation (short essay discussing your motivation for study)
- A current resume
- Original transcript(s) from all schools attended, especially the degree conferring school, with degree and date
- Three letters of recommendation from professors or employers
- A non-refundable application fee of $85 for a degree program (and $25 for a certificate program) made payable to Boston University

Applications are reviewed by the Metropolitan College Graduate Committee on a continuing basis throughout the year. Transfer credit from other accredited institutions can be discussed with an Academic Advisor. Up to two courses can be transferred into a program based on course content, grade earned, meeting hours, and the submission of an official transcript with the Admission Packet.
Degree and Certificate Requirements

The Master of Science in Leadership (MSL), the Master of Science in Computer Information Systems (MSCIS), and the Master of Science in Computer Science (MSCS) require ten 4-credit courses for a total of 40 credit hours. A minimum grade of 2.7 (B-) in each course is required for graduation. An overall grade point average of 3.0 (B) must be maintained to be in good academic standing and to graduate. All requirements for the degree must be satisfied within six years of the date of initial registration.

Prerequisites

MSCIS students must be proficient in the basic areas of computer spreadsheet, database, and word processing applications. Students may need to complete the prerequisite course MET CS 200 Fundamentals of Information Technology depending on their education and experience.

MSCIS Required Courses

The following are required of all MSCIS degree candidates:

Core courses (6):
MET CS 520 Information Structures with Java or MET CS 521 Information Structures with Python
MET CS 625 Business Data Communications and Networks
MET CS 669 Database Design and Implementation
MET CS 682 Information Systems Analysis and Design
MET CS 782 IT Strategy and Management
MET CS 546 Quant Methods for Info Systems

Elective courses which may be substituted for (4) (e.g. for IT Project Management Concentration)
MET CS 632 IT Project Management
MET CS 633 Distributed Soft Dev & Management
MET CS 634 Agile Software Development
MET CS 783 Enterprise Architecture

MSL Required Courses

Due to the popularity of the GCPM in conjunction with the MSL, the 4 GCPM courses have been incorporated into the MSL program. The following are required of all MSL degree candidates and include the 4 GCPM courses:

MET AD 615 Introductory Macroeconomic Analysis
MET AD 711 Leadership and Strategy
MET AD 715 Quantitative and Qualitative Analysis
MET LD 705 Leadership in a Dynamic Environment
MET AD 632 Financial Concepts
MET LD 630 Leadership – Historic and Social Perspectives
MET AD 642 Project Management
MET AD 643 Project Communications Management
MET AD 649 Agile Project Management Or MET AD 644 Project Risk and Cost Management
MET AD 646 Program Management
**MSCS Required and Elective Courses**

The following are required core and optional elective courses (which may be substituted for) for all MSCS degree candidates:

**Core Courses (5)**

- MET CS 535 Computer Networks or
  - MET CS 579 Database Management
- MET CS 566 Analysis of Algorithms
- MET CS 575 Operating Systems
- MET CS 662 Computer Language Theory
- MET CS 673 Software Engineering

**Elective Courses (5 courses: which may be substituted for)**

- MET CS 684 IT Security Policies and Procedures*
- MET CS 690 Network Security*
- MET CS 695 Enterprise Information Security*
- MET CS 789 Cryptography*
- MET CS 664 Artificial Intelligence
- MET CS 767 Machine Learning

* 4 courses for the Security Concentration

**GCPM Required Courses (4)**

The following are required of all GCPM certificate candidates:

- MET AD 642 Project Management
- MET AD 643 Project Communications Management
- MET AD 649 Agile Project Management
  - Or MET AD 644 Project Risk and Cost Management
- MET AD 646 Program Management

**Course Substitutes or Electives**

When applicable, students may take substitute or elective course on the main campus or online but such courses will be at the public tuition rate.
### Fall 2017 – Tentative Schedule of Hanscom Weekends

All Weekend Classes Run From 08:30 Hours to 16:00 Hours

#### Fall 2017 - Registration June 1, 2017 – Sept. 10, 2017

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Class Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept.</td>
<td>16 &amp; 17</td>
</tr>
<tr>
<td>2</td>
<td>Sept. / Oct.</td>
<td>30 &amp; 1</td>
</tr>
<tr>
<td>3</td>
<td>Oct.</td>
<td>14 &amp; 15</td>
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<tr>
<td>4</td>
<td>Oct.</td>
<td>28 &amp; 29</td>
</tr>
<tr>
<td>5</td>
<td>Nov.</td>
<td>4 &amp; 5</td>
</tr>
<tr>
<td>6</td>
<td>Nov.</td>
<td>18 &amp; 19</td>
</tr>
<tr>
<td>7</td>
<td>Dec.</td>
<td>2 &amp; 3</td>
</tr>
</tbody>
</table>

**Saturday class is:**
MET AD 646B HA “Program Management” (MSL, MSPM, GCPM)

**Sunday class is:**
MET AD 715B HA “Quant & Qual” (MSL, MSPM)

**Weeknight classes (6:00PM – 8:45PM) are:**
MET CS 634B HA “Agile Software Development” (Monday 9/11 - MSCIS elective)
MET CS 789B HA “Cryptography” (Monday 9/11- MSCS/MSCIS elective)
MET CS 782B HA “IT Strategy” (Wednesday 9/6 – MSCIS core)
MET CS 662B HA “Computer Language Theory” (Thursday 9/7 MSCS core)

### Spring 2018 – Tentative Schedule of Hanscom Weekends

All Weekend Classes Run From 08:30 Hours to 16:00 Hours

#### Spring 2018 - Registration Nov. 1, 2017 – Jan. 12, 2018

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Class Details</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>January</td>
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<td>February</td>
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<tr>
<td>3</td>
<td>February</td>
<td>24 &amp; 25</td>
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<tr>
<td>4</td>
<td>March</td>
<td>10 &amp; 11</td>
</tr>
<tr>
<td>5</td>
<td>March</td>
<td>24 &amp; 25</td>
</tr>
<tr>
<td>6</td>
<td>April</td>
<td>7 &amp; 25</td>
</tr>
<tr>
<td>7</td>
<td>April</td>
<td>21 &amp; 22</td>
</tr>
</tbody>
</table>

**Saturday class is:**
MET AD 632B HA “Financial Concepts” (MSL, MSPM)

**Sunday class is:**
MET LD 705B HA “Leadership in Dyn Env” (MSL)

**Weeknight classes (6:00PM – 8:45PM) are:**
MET CS 783B HA “Enterprise Architecture” (Monday 1/22- MSCS/MSCIS elective)
MET CS 625B HA “Business Data Communications” (Tuesday 1/23 – MSCIS core)
MET CS 664B HA “Artificial Intelligence” (Wednesday 1/24 – MSCS elective)
MET CS 566B HA “Analysis of Algorithms” (Thursday 1/18 - MSCS core)
### Summer 2018 – Tentative Schedule of Hanscom Weekends
All Weekend Classes Run From 08:30 Hours to 16:00 Hours

<table>
<thead>
<tr>
<th>Week</th>
<th>Month</th>
<th>TBD</th>
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<tbody>
<tr>
<td>1</td>
<td>May</td>
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</tr>
<tr>
<td>2</td>
<td>June</td>
<td>TBD</td>
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<tr>
<td>3</td>
<td>June</td>
<td>TBD</td>
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<tr>
<td>4</td>
<td>June</td>
<td>TBD</td>
</tr>
<tr>
<td>5</td>
<td>July</td>
<td>TBD</td>
</tr>
<tr>
<td>6</td>
<td>July</td>
<td>TBD</td>
</tr>
<tr>
<td>7</td>
<td>August</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**Saturday class is:**
MET AD 642B HA “Project Management” (MSL, MSPM, GCPM)

**Sunday class is:**
MET LD 630B HA “Leadership in Dyn Env” (MSL)

**Weeknight classes (6:00PM – 9:30PM) are:**
MET CS 546B HA “Quant Methods for IS” (TBD- MSCIS core)
MET CS 682B HA “Info Sys Analysis” (TBD – MSCIS core)
MET CS 575B HA “Operating Systems” (TBD - MScS core)
MET CS 683B HA “Mobile Application Development” (TBD – MScS elective)

### Number of Students Required for Hanscom AFB Classes

Boston University expects that the proposed graduate degree options will generate a high level of interest from potential students at Hanscom AFB. We expect that we would easily attract 25 students per class. We would propose that classes run with a minimum of 15 students.

### Financial Information

**Official Registration**

All students are expected to register during the normal registration period each semester. All students must be registered before the end of the second class meeting each semester. Students applying for loans or who are recipients of financial assistance will have their applications or awards terminated if they are not registered by the official registration deadline. An officially registered student is one who has submitted course selections on a registration form, paid all charges (current and past), and been approved by the University comptroller.

**Tuition and Fees**

Tuition and fees must be paid in full at the time of registration. A deferred payment program is available for part-time students (see section on Deferred Payment below). Checks must be made payable to Boston University. No student may withdraw in good standing unless all current obligations to the University are paid.
The Trustees of the University reserve the right to change tuition rates or fees at their discretion. The University maintains a tuition guaranty bond that is registered with the clerks of the Superior Court of Norfolk County, Massachusetts, and is accessible at the Department of Risk Management, Office of Business Affairs, Boston University, 985 Commonwealth Avenue, Boston, MA 02215.

**Tuition 2017-2018 (9/1/17 through 8/31/18):** $2,720 ($680 per credit hour).

Tuition for future years is subject to change and is determined by the Boston University Board of Trustees.

Note that the tuition listed above is a reduced rate for the Military Programs and does not apply to the public programs run on BU campuses or online. This special military rate applies to active duty military, their dependents, and DOD employees or contractors.

**Application fee:** $85 – paid at time of formal application only

**Student Services fee:** $60 (per semester)

**Late registration fee:** $100 (per semester)

**Course waiver:** $50 (MSCIS prerequisite exam only)

**Deferred Payment Service Charge:** $50 (per semester)

**Returned check fee:** $25 (per check/charge, each time)

**Late payment fees:** $25-$300 (Varies progressively according to dates of late payments)

Note: The cost of assigned books and course materials are additional and are not included in the above costs.

**Graduate Degree Candidates**

Graduate degree candidates taking 12 or more credits are charged the full-time tuition rate.

**Financial Aid**

Students interested in a Stafford Loan (formerly called a Guaranteed Student Loan or a GSL) should contact the local Boston University field office for information and forms. At a minimum, a student must have been admitted into a degree program, and be on academic half-time status during the entire loan period to be eligible for a Stafford Loan.

**Deferred Payment**

Part-time Metropolitan College students who wish to make monthly payments may do so through a deferred payment program. Please note that the full tuition amount is used to determine the 25 percent down payment, and does not reflect Military Tuition Aid or employer reimbursement amounts. Information on this program is available at the administrative offices. A nonrefundable service charge of $50 and a minimum down payment of one-fourth the total tuition and full payment of fees for the semester are required at the time of registration. Boston University also accepts Master Card, Discover Card, or VISA for payment of tuition and fees up to the extent of the unused credit card limit.

**Late Registration**

In special instances, students may petition the dean of Metropolitan College to have their registrations accepted after the announced registration deadline. Students who wish a waiver of the official registration deadline must petition the University in addition to their petition to the dean of Metropolitan College. If the petition for waiver is approved by the
University, the student is subject to a minimum late payment fee of $100 for part-time students and $200 for full-time students. Petition forms are available at the Boston University offices.

Withdrawals, Credits, Refunds

Withdrawal or leave of absence from the program is not official until the student presents the appropriate form to the Boston University office. Absence from class neither constitutes withdrawal nor reduces a student's financial obligation to the University.

Withdrawing from the University

To withdraw from the University or to request a leave of absence, a student must file an official withdrawal form with Boston University.

Program Termination

Boston University reserves the right to schedule the termination of the program if circumstances require. In the case of program termination, the University will phase out the scheduling of courses in such a way that students have the opportunity to complete degree requirements.

Refunds and Credits

The refund and credit balance policy applies to tuition only; fees unless specified are not refundable. In the table below, class refers to a weekend meeting. Also note this policy applies only to courses taken at Hanscom AFB, not to online courses or courses taken at the Boston campus.

<table>
<thead>
<tr>
<th>Date of Withdrawal</th>
<th>Tuition Refund or Credit Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before first class</td>
<td>100% (tuition and fees)</td>
</tr>
<tr>
<td>Before second class</td>
<td>100%</td>
</tr>
<tr>
<td>Before third class</td>
<td>50%</td>
</tr>
<tr>
<td>Before fourth class</td>
<td>25%</td>
</tr>
<tr>
<td>After fourth class</td>
<td>0%</td>
</tr>
</tbody>
</table>

If a student has a credit balance on his or her financial record as a result of dropping a course, a tuition refund will be issued by the Finance Office after the drop form has been processed by the Registrar's Office. If the withdrawing student used government tuition assistance, an appropriate refund will be made to the government using the above schedule. For students using Veterans Administration or Tuition Assistance benefits, the effective date of the withdrawal and adjusted tuition charge will be reported to the government.

Dropping a Course

To drop a course, it is the responsibility of the student to have the professor teaching the course sign an official drop form. The student must also sign the form and submit it to the Boston University office. After this form is filed, a tuition adjustment is made according to the date verified by the professor's signature. The effective date of the drop is the day after the last class attended. If the student attended no classes, the effective date is the day before the first class. A drop form will not be accepted after the final class meeting.
Graduation Information

BU holds a combined commencement exercise with other onbase schools for its Military Program graduates. Those who complete degrees in the Military Programs are also welcomed to the graduation on the main campus. In the case of the Hanscom base program, proximity to Boston will be an advantage to graduates of the program to enjoy a variety of recognition events and celebrations on and off the base.
COURSE DESCRIPTIONS FOR HANSCOM AIR FORCE BASE

MSCIS Degree, MSCS Degree and Graduate Certificates

The full set of courses and their descriptions for the MSCIS degree program, the MSCS degree program, and the graduate certificates can be found at: [http://www.bu.edu/csmet](http://www.bu.edu/csmet)

**MSCIS Pre-Requisite:** MET CS 200 Fundamentals of Information Technology (Boston or online)

This course is a technically-oriented introductory survey of information technology. Students learn about basic computer information, different types of business systems and basic systems analysis, design and development. Students also study basic mathematics, software development and create simple Java programs.

1: **MET CS 546 Quantitative Methods for Information Systems**

The goal of this course is to provide Computer Information Systems students with the mathematical fundamentals required for successful quantitative analysis of problems in the field of business computing. The first part of the course introduces the mathematical prerequisites for understanding probability and statistics. Topics include combinatorial mathematics, functions, and the fundamentals of differentiation and integration. The second part of the course concentrates on the study of elementary probability theory, discrete and continuous distributions.

2: **MET CS 520 Information Structures using Java**

This course covers the concepts of the object-oriented approach to software design and development using the Java programming language. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures methods, classes, applets, arrays and strings, and proceeding to advanced topics such as inheritance and polymorphism, interfaces, creating user interfaces, exceptions and streams. Upon completion of this course the students will be able to apply software engineering criteria to design and implement Java applications that are secure, robust, and scalable.

3: **MET CS 625 Business Data Communications and Networks**

This course presents the foundations of data communications and takes a bottom-up approach to computer networks. It begins with an overview of modern data communication requirements, and basic distributed data concepts. A brief history of the Internet is presented followed by the basics of the OSI and TCP/IP computer networks models. The Physical Layer is presented in the form of basic Data communication concepts over various transmission media, wireless transmission, and the telephone system. The Data Link Layer presentation deals with design issues, error detection and correction, and the Medium Access Sub-layer covers channel allocation problems, multiple access protocols, IEEE standard 802 for LANs and WLANs, as well as bridges, switches and high-speed LANs. The basic functions of the Network Layer are explained in the context of design issues, internetworking, and the network layer in the Internet. The Transport Layer includes the transport service and elements of transport protocols, as well as the TCP and UDP Internet transport protocols. The Application Layer issues cover the main distributed applications, such as electronic mail, DNS, ftp, www etc. The course concludes with an overview of basic network security and management concepts.
4: MET CS 669  Database Design and Implementation for Business

Students learn the latest relational and object-relational tools and techniques for persistent data and object modeling and management. Students gain extensive hands-on experience using Oracle or Microsoft SQL Server as they learn the Structured Query Language (SQL) and design and implement databases. Topics covered include: the relational and entity-relational models, data modeling, normalization, object modeling, SQL, advanced SQL, stored procedures, triggers, database design, database lifecycle, and transactions. Students are introduced to advanced topics including performance tuning, distributed databases, replication, business intelligence, data warehouses, internet databases, database administration, security, backup and recovery. Students design and implement a database system as a term project. (Lab class)

5: MET CS 682  Information Systems Analysis and Design

Object-oriented methods of information systems analysis and design for organizations with data-processing resources. System feasibility, information requirements analysis, database utilization, including data dictionaries, software design and implementation management, project control, and systems-level testing and installation.

6: MET CS 782  IT Strategy and Management

This course provides an overview of contemporary information systems technology (IT) management. It explains the relevant issues of effective management of information services activities and highlights the areas of greatest potential application of the technology. No assumptions are made concerning the reader's experience with IT, but it is assumed that the reader has some course work or work experience in administration of management.

7: MET CS 674 Database Security [ also for Information Security Graduate Certificate]

The course provides a strong foundation in database security and auditing. This course utilizes Oracle scenarios and step-by-step examples. The following topics are covered: security, profiles, password policies, privileges and roles, Virtual Private Databases, and auditing. The course also covers advanced topics such as SQL injection, database management security issues such as securing the DBMS, enforcing access controls, and related issues.

8: MET CS 684 IT Security Policies and Procedures [ also for Information Security Graduate Certificate]

This course enables IT professional leaders to identify emerging security risks and implement highly secure networks to support organizational goals. Discussion of methodologies for identifying, quantifying, mitigating and controlling risks. Students implement a comprehensive IT risk management plans (RMP) that identify alternate sites for processing mission-critical applications, and techniques to recover infrastructure, systems, networks, data and user access. The course also discusses related topics such as: disaster recovery, handling information security; protection of property, personnel and facilities; protection of sensitive and classified information, privacy issues, and criminal terrorist and hostile activities.

9: MET CS 693 Digital Forensics and Investigations [ also for Information Security Graduate Certificate]

Provides a comprehensive understanding of digital forensics and investigation tools and techniques. Learn what computer forensics and investigation is as a profession and gain an understanding of the overall investigative process. Operating system architectures and disk structures are discussed. Studies how to set up an investigator's office and laboratory, as well as what computer forensic hardware and software tools are available. Other topics covered include importance of digital evidence controls and how to process crime and incident scenes, details of
data acquisition, computer forensic analysis, e-mail investigations, image file recovery, investigative report writing, and expert witness requirements. Provides a range of laboratory and hands-on assignments either in solo or in teams. With rapid growth of computer systems and digital data this area has grown in importance.

10: MET CS 695 Enterprise Information Security [also for Information Security Graduate Certificate]

The course provides an in-depth presentation of security issues in computer systems, networks, and applications. Formal security models are presented and illustrated on operating system security aspects, more specifically memory protection, access control and authentication, file system security, backup and recovery management, intrusion and virus protection mechanisms. Application level security focuses on language level security and various security policies; conventional and public keys encryption, authentication, message digest and digital signatures. Internet and intranet topics include security in IP, routers, proxy servers, and firewalls, application-level gateways, Web servers, file and mail servers. Discussion of remote access issues, such as dial-up servers, modems, VPN gateways and clients.

MS Leadership Degree

1: MET LD 630 Leadership – Historic & Social Perspectives

This course will examine the underlying values of organizations and guides students through the evolutionary development of successful leadership models. Students will be exposed to multiple profiles and strategies of renowned leaders with a diverse set of challenges reflecting innovative and evolving methodologies.

2: MET LD 705 Leadership in a Dynamic Environment

This course will analyze the values, behaviors, and processes that lead people and organizations to become effective leaders in their chosen field and as a consequence to build sustainable and lasting competitive advantages.

3: MET AD 711 Leadership and Strategy

Explores the process of strategic planning and decision making in various types of organizations. Topics include policy formation and execution, goal setting and the planning process, rational decision making models, evaluation of alternatives, decision trees, predictions of outcomes, cost benefit analysis, uncertainty and risk assessment, and evaluation of outcomes.

4: MET AD 615 Introductory Macroeconomic Analysis

Includes national economic performance; problems of recession, unemployment inflation, and trade and budget deficits; money creation, government spending, and taxation; economic policies for full employment and price stability; and international trade and payments.

5: MET AD632 Financial Concepts

Introduction to the concepts, methods, and problems of accounting and financial analysis. Includes accounting principles, measurement and disclosure issue, financial statement analysis, time value of money, cash flow projection and analysis, time value of money, capital budgeting and project evaluation, bone and equity valuation, cost of capital and capital structure.

6: MET AD 715 Quantitative and Qualitative Decision Making

Explores decision making and policy formulation in organizations. Includes goal setting and the planning process, rational models of decision making, evaluation of alternatives, prediction of
outcomes, cost-benefit analysis, decision trees, uncertainty and risk assessment, and procedures for evaluation of outcomes.

7: MET AD 642 Project Management

The course examines the concepts and applied techniques for cost-effective management of both long-term development programs and projects. Project management principles and methodology are provided with special focus on planning, controlling, and coordinating individual and group efforts. Key topics of focus include overview of modern project management; organization strategy and project selection; definition a project, developing a project plan, and scheduling resources; project risk analysis; work breakdown structures; and project networks. MS Project will be introduced in this course to provide hands-on practical skills with the above topics. Mastery of key tools and concepts introduced provides a significant competitive advantage.

8: MET AD 643 Project Communications Management

To succeed in project management, you must be a strong leader and an effective communicator. This course examines the current philosophies of leadership as applied to project management and identifies various styles of communication and conflict resolution. Through case studies and various exercises, you will develop enhanced leadership, communication, conflict management and negotiation skills.

9: MET AD 644 Project Risk and Cost Management

This course introduces the art and science of project risk as well as continuity management and cost management. Managing the risk of a project as if relates to a three part systematic process of identifying analyzing, and responding is examined through actual case studies. Students learn how to manage the components of a project to assure it can be completed through both general and severe business disruptions on local, national, and international level. Students learn the process of cost management, early cost estimation, detailed cost estimate, and cost control using earned value method. Students study in depth the issues of project procurement management and the different types of contracts for various scope scenarios.

9A: MET AD 649 Agile Project Management  (alternative to MET AD 644)

This course provides an understanding of how new Agile principles and practices are changing the landscape of project management. The course is designed to give project managers fresh new insight into how to successfully blend Agile and traditional project management principles and practices in the right proportions to fit any business and project situation. The course provides a deep understanding of Agile project management principles and practices in order to see them as complementary rather than competitive to traditional project management. Topics include: Agile fundamentals, principles, and practices; roots of Agile in TQM and Lean Manufacturing; adapting an Agile approach to fit a business environment; planning and managing an enterprise-level Agile transformation; scaling agile to an enterprise level using enterprise-level Agile frameworks and Agile Project Management tools

10: MET AD 646 Program Management

Programs and projects deliver benefits to organizations by enhancing current capabilities or developing new capabilities for the organization to use. This course will provide a detailed understanding of program management and will present concepts that promote efficient and effective communication and coordination among various groups. Students understand PMI program management processes and use tools that automate and enforce processes for managing scope changes, risk, quality, issues, schedules, resources, releases, and costs. You will learn how to design a program and manage program costs, risks, and communications within the context of Project Portfolios. This course is targeted to senior executives, portfolio managers, program managers, project managers, and their team members, members of a PMO,
customers/stakeholders, educators, and consultants. This course introduces processes and knowledge areas from three new PMI standards: Program Management standard, OPM3, and Portfolio Management.

**Planned Rotation of Courses for Hanscom AFB (tentative)**

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<tr>
<th>Semester/Year</th>
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**Boston University Metropolitan College**

**Faculty - Graduate Military Programs**

Courses are taught by full-time and part-time faculty. Faculty with professorial status at Boston University or at other distinguished universities carry the usual academic titles of instructor, assistant professor, associate professor, and professor.

Certain part-time instructors may be awarded an adjunct professorial title on nomination by the dean of Metropolitan College and approval by the president and the Board of Trustees. Part-time instructors not designated as above hold the title of lecturer.

A list of full-time and part-time faculty members and their credentials can be found at: [http://www.bu.edu/met/academic-community/faculty](http://www.bu.edu/met/academic-community/faculty)