

MET CS 693 Digital Forensics

2026 Spring O2 Online Course Syllabus

Instructor

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Course Duration

Start: March 10, 2026; End: April 27, 2026

Course credits

4 credits

Course Description

This course presents students with a comprehensive understanding of digital forensic principles and the collection, preservation, and analysis of digital evidence. Students will learn about the importance of forensic principles and procedures, legal considerations, digital evidence controls, and the documentation of forensic analysis. Course topics will include computer and network technologies, operating system architectures, disk structures, and file system analysis. Students will develop an understanding of the different applications and methods for conducting network and digital forensic acquisition and analysis. This course will incorporate laboratory exercises and demonstrations to reinforce practical applications of digital forensic theory.

Course Learning Objectives

By successfully completing this course, you will be able to do the following:

- Describe the attributes of file systems and storage media.
- Identify potential sources of electronic evidence.
- Understand the importance of maintaining the integrity of digital evidence.
- Demonstrate the ability to perform basic forensic data acquisition and analysis using computer and network-based applications and utilities.
- Demonstrate the ability to accurately document forensic procedures and results.
- Identify career opportunities for digital forensic professionals.
- Demonstrate the ability to conduct research to develop an in depth understanding of a topic relating to digital forensics.

Course Outline

- **Readings** - Each module has both textbook readings and online readings. Your professor may suggest additional readings during the course.
- **Discussions** - There are both class and group threaded discussions for each module. These discussions are moderated by your facilitator. Postings for each discussion should be completed by the assigned due dates. There are also general discussions boards, which are not graded, for you to use to discuss any issues with your classmates.
- **Assignments and labs** - There are assignments and labs that are due throughout the course.
- **Midterm and Final Exams** - Assessments can be accessed in the module in which they are assigned.

Module 1: Digital Forensics and Incident Response

Overview of Digital Forensics and Incident Response and Investigations: Legal Aspects of Digital Forensics.

Module 2: Computing and Network Devices

Introduction to Computing and Network Devices and Operating System Architecture and Disk Structures.

Module 3: Digital Forensic Acquisition and Authentication

Principles of Digital Forensic Acquisition and Authentication and Digital Evidence Handling and Processing Digital

Forensic Media Acquisition, Midterm Examination

Module 4: Digital Forensic Analysis

Principles of Digital Forensic Analysis and Applications and Digital Forensic Media Analysis (UNIX/Linux).

Module 5: Network Forensic Analysis

Principles of Network Forensic Analysis (Laboratory Session) and Digital Forensic Media Analysis (Microsoft Windows)

Module 6: Forensic Reports and Testimony

Forensic Reports and Testimony Special Topics in Digital Forensics

Module 7: Final Exam and Wrap-up

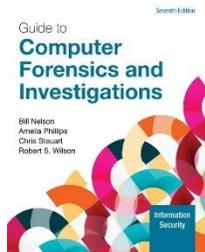
You will prepare for and take the proctored final exam.

The course will remain open two weeks after the final exam so that you can continue discussions and ask any questions about Digital Forensics, your grades, or the course. This

is also a time when we enter into a dialogue to learn from you how we can modify the course so that it better meets student needs.

Course Materials and Resources

Required Book and Online Access



Guide to Computer Forensics and Investigations 7th ed.
and MindTap Access

Welcome To First Day™ Delivery for Your Course

To enhance your learning experience and simplify access to the right materials for your class, your course materials have been integrated directly into your course.

Benefits of The Program

- Exclusive preferred pricing Guaranteed the right materials Single Sign-On
- Ready to go on day one
- Course materials charge will be placed on your student account
- Option to Opt-Out on the first day of class.

Accessing Your Materials

To access the required materials for your course, click on *Course Materials (Barnes & Noble)* in the left-hand menu in Blackboard. To navigate back to the course, click on the course title at the top left of your Blackboard screen. Boston University will bill you at the discounted price as a course charge for this course. Please be advised it is NOT recommended that you Opt-Out, as these materials are required by your professor to complete the course. You can choose to Opt-Out on the first day of class, but you will be responsible for purchasing your course materials at the Opt-Out price. For more information and FAQs visit Barnes and Noble at Boston University [customer care page](#). An optional loose-leaf print book is also available through [Barnes and Noble at Boston University bookstore](#) by entering your course information in the Course Materials & Textbooks section.

Library eReserves

This course requires readings provided through library eReserves. The [Course eReserves CS 693](#)

reading will open in a new browser window.

Course Downloads and References

Forensic Examination of Digital Evidence: A Guide for Law Enforcement

NCJ 199408, April 2004, Special Report, National Institute of Justice

Electronic Crime Scene Investigation: A Guide for First Responders

NCJ 187736, July 2001, NIJ Guide, National Institute of Justice

Digital Evidence in the Courtroom: A Guide for Law Enforcement & Prosecutors

Investigations Involving the Internet and Computer Networks

NCJ 210798, January 2007, Special Report, National Institute of Justice

Cloud Computing Forensic Science Challenges

GRIZZLY STEPPE – Russian Malicious Cyber Activity: Joint

Analysis Report GRIZZLY STEPPE – Russian Malicious Cyber

Activity: Indicators

Additional References

- [Incident Response](#)
Purdue University Incident Response Policy (VII.B.3)
- [Conditions on Use and Policy on Computing Ethics](#)
Boston University
- [United States Code](#)
- [Investigations Involving the Internet and Computer Networks](#)
NCJ 210798, January 2007, Special Report, National Institute of Justice

Live Classroom Discussions and Archives

There will be synchronous Live Classroom discussions that will be announced during the course. These sessions will be archived for further viewing. Your participation, while not mandatory, will be valuable to you and the entire class. In order to participate in these discussions or to access the archived sessions, you will need to go to the Live Classroom links.

Copyright Information

Some of this course is based on copyrighted material from Cengage textbooks and the DOJ

reference material on Digital Forensics. To maintain readability, no formal references are used in the course lectures. Original copyright content from James Burrell and Vijay Kanabar (and from former students with their permission) is noted in the course content. Other material including multimedia is developed and owned by Boston University.

Microsoft Azure Dev Tools for Teaching

Microsoft Azure Dev Tools for Teaching is a Microsoft program that supports technical education by providing access to Microsoft software for learning, teaching, and research purposes. Our membership allows faculty and students currently enrolled in MET courses to obtain certain Microsoft products free of charge. All MET students are granted access to download the software for the duration of their study at MET College.

FAQ and basic information are at [Microsoft Azure Dev Tools for Teaching](#), (You may have to enter your personal BU login credentials to access this page.)

VMware Workstation Pro and Fusion

As VMware Academy products become integrated into Broadcom, VMWare Workstation and Fusion are now freely available for students who wish to download and run the labs on their own hardware—not using the MET IT Virtual Lab. See the following for more information:

[VMware Desktop Hypervisor Pro Apps Now Available for Personal Use](#)

Study Guide and Timeline of Deliverables

This course starts on a Tuesday. The modules in this course run from Tuesday to Monday.

The following material is collected here for your convenience but the required readings, discussion details, and assignment particulars can be found within the modules.

In preparation for this course you should read:

Forensic Examination of Digital Evidence: A Guide for Law Enforcement

NCJ 199408, April 2004, Special Report, National Institute of Justice

Digital Evidence in the Courtroom: A Guide for Law Enforcement & Prosecutors

Module 1 Study Guide and Deliverables

(March 10 – March 16, 2026)

Module Theme:

Module 1: Digital Forensics and Incident Response

Readings:

- Module 1 online content

- *Guide to Computer Forensics and Investigations*
 - *Module 1: Understanding the Digital Forensics Profession and Investigations*
- *Optional: File System Forensic Analysis*, Chapter 1 (Available in eReserves.)

Discussions:

- Please post your introduction as soon as possible.
- Discussion 1 postings end **Tuesday, March 17, at 6:00 AM ET**

Assignments:

- Module 1 Assignment due **Tuesday, March 17, at 6:00 AM ET**

labs:

- Please try to login to the MET IT Hosted Virtual Lab machine this week.

Live Classrooms:

- **Tuesday, March 10, 4:00-5:00 PM ET**
- **Sunday, March 15, 3:30-4:30 PM ET**

Module 2 Study Guide and Deliverables

(March 17 – March 23, 2026)

Module Theme:

Module 2: Computing and Network Devices

Readings:

- Module 2 online content
- *Guide to Computer Forensics and Investigations*
 - *Module 3: Investigators Laboratory and Digital Forensics Tools*
 - *Module 6: Working with Microsoft File*
 - *Systems and the Windows Registry*
- Read [FTK 8.0 User Guide](#)
- *Optional: File System Forensic Analysis*, Chapter 2 (Available in eReserves.)

Discussions:

- There are no discussions this week.

Assignments:

- There are no assignments this week.

labs:

- Module 2 Lab due **Tuesday, March 24, at 6:00 AM ET.**

Live Classrooms:

- Tuesday, March 17, 4:00-5:00 PM ET
- Sunday, March 22, 3:30-4:30 PM ET

Module 3 Study Guide and Deliverables

(March 24 – March 30, 2026)

Module Theme:

Module 3: Digital Forensic Acquisition and Authentication

Readings:

- Module 3 online content
- *Guide to Computer Forensics and Investigations*
 - *Module 4: Data Acquisition*
 - *Module 11: Cloud Forensics and the Internet of Everything*
- Optional: *File System Forensic Analysis*, Chapter 3 (Available in eReserves.) *NIST, Cloud Computing Forensic Science Challenges* (Available in eReserves.)
- *NIST, Cloud Computing Forensic Science Challenges* (Available in eReserves.)

Discussions:

- There are no discussions this week.

Assignments:

- Module 3 Assignment due **Tuesday, March 31, at 6:00 AM ET**

labs:

- Module 3 Lab due **Tuesday, March 31, at 6:00 AM ET**

Live Classrooms:

- Tuesday, March 24, 4:00-5:00 PM ET
- Sunday, March 29, 3:30-4:30 PM ET

Module 4 Study Guide and Deliverables

(March 31 – April 6, 2026)

Module Theme:

Module 4: Digital Forensic Analysis

Readings:

- Module 4 online content
- *Guide to Computer Forensics and Investigations*
 - *Module 5: Processing Crime and Incident Scenes*

- *Module 8: Media Files & Digital Forensics*

Discussions:

- There are no discussions this week.

Assessments:

- The midterm exam opens on **Tuesday, March 31 at 6:00 AM ET** and is due on **Sunday, April 5 at 6:00 AM ET**.

This **open book** test covers all assigned material across the first three weeks of the course. This includes all book, module, and non-optional supplemental texts assigned during these weeks. Refer to the live classroom mid-term review for details.

labs:

- Module 4 Lab due **Tuesday, April 7, at 6:00 AM ET**

Live Classrooms:

- **Tuesday, March 31, 4:00-5:00 PM ET**
- **Sunday, April 5, 3:30-4:30 PM ET**

Module 5 Study Guide and Deliverables

(April 7 – April 13, 2026)

Module Theme:

Module 5: Network Forensic Analysis

Readings:

- Module 5 online content
- *Guide to Computer Forensics and Investigations*
 - *Module 9: Virtual Machine Forensics & Live Acquisitions Forensics*
 - *Module 10: Network Forensics*
 - *Module 13: Email and Social Media Investigations*
- *Investigations Involving the Internet and Computer Networks* (DOJ Special Report) (Available in eReserves.)
- [*Tactics, Techniques, and Procedures of Indicted APT40 Actors Associated with China's MSS Hainan State Security Department*](#) (CISA Cybersecurity Advisory, July 20, 2021)
- [*Cybersecurity Incident & Vulnerability Response Playbooks*](#) (CISA, November 2021) (Available in eReserves)

Discussions:

- Discussion 5 postings end **Tuesday, April 14, at 6:00 AM ET**

Assignments:

- There are no assignments due this week.

labs:

- Module 5 Lab due **Tuesday, April 14, at 6:00 AM ET**

Live Classrooms:

- **Tuesday, April 7, 4:00-5:00 PM ET**
- **Sunday, April 12, 3:30-4:30 PM ET**

Module 6 Study Guide and Deliverables

(April 14 – April 20, 2026)

Module Theme:

Module 6: Forensic Reports and Testimony

Readings:

- Module 6 online content
- *Guide to Computer Forensics and Investigations*
 - *Module 2: Report Writing and Testimony for Digital Investigations*
 - *Module 12: Mobile Device Forensics*

Discussions:

- There are no discussions this week.

Assignments:

- There are no assignments due this week.

labs:

- Module 6 Lab due **Tuesday, April 21, at 6:00 AM ET**

Live Classrooms:

- **Tuesday, April 14, 4:00-5:00 PM ET**
- **Sunday, April 19, 3:30-4:30 PM ET**

Course Evaluation:

Please complete the course evaluation once you receive an email or Blackboard notification indicating the evaluation is open. Your feedback is important to MET, as it helps us make improvements to the program and the course for future students.

Final Exam Details

The Final Exam is a proctored exam available from **Wednesday, April 22, 2025, at 6:00 AM ET to Saturday, April 25, 2025, at 11:59 PM ET.**

The Computer Science department requires that all final exams be administered using an online proctoring service, which you will access via your course in Blackboard. In order to take the exam, you are required to have a working computer, webcam, speakers, and microphone that meet the proctoring service's system requirements. A detailed list of those requirements can be found in the Proctored Exam Information module located on the course home page. Additional information regarding your proctored exam will be forthcoming from the Assessment Administrator. You will be responsible for scheduling your proctored exam session within the defined exam window.

The exam is accessible during the final exam period. Your proctor will enter the password to start the exam.

Final Exam Duration: **3 hours (180 minutes)**

This is an open book/open notes exam. However, you cannot bring calculators to the exam.

You can take the exam only once. The exam features essay questions and multiple choice or true/ false questions.

Course Grading Information

Please check the **Study Guide** for Live Classroom dates and specific due dates for assignments and assessments.

Each module in this course will cover one or more core digital forensic principles, along with details on the collection, preservation, and analysis of digital evidence. Most modules will also have at least one lab component. Students will be able to demonstrate their understanding of the fundamental of digital forensics through these assignments.

Grading Policy

All students will be expected to demonstrate digital forensics knowledge and techniques. To obtain an exceptional grade you have to exceed expectations in your projects, quizzes and assignments.

Grading Structure and Distribution

The grade for the course is determined by the following:

Grading Scheme	
Homework Assignments	10%
Labs	25%
Discussions/Participation	10%
Midterm Examination	25%
Final Examination	30%

Grade	Approximate Numeric Grade Range	Grade Points
A	95–100	4.0
A–	91–94.9	3.7
B+	87–90.9	3.3
B	83–86.9	3.0
B–	80–82.9	2.7
C+	75–79.9	2.3
C	65–74.9	2.0
C–	60–64.9	1.7
D	50–59.9	1.0
Fail	< 50	0

Course Requirements

Participation

- Graded Discussions - all discussions will be graded on a 100-point scale.

Assignments and Labs

- Assignments will be assigned during the semester to reinforce topics presented during classroom lectures. Homework assignments and student submissions will be facilitated using the Boston University online learning management system. All homework must be the original effort of the student submitting the assignment.

Expectations

Many learning activities require sharing your assignments and opinions with your classmates. For example, you may be given a set of criteria on the basis of which to evaluate other classmates' assignments and asked to submit the results to your facilitator by a specified date. It is, therefore, very important that you, as well as your classmates, submit your assignments on a timely basis. Timely submission by all will result in each of you being able to evaluate each other's assignments. Due dates are indicated for each assignment in the Study Guide.

Delays

If, for any reason, you are unable to meet any assignment deadline, contact your Course Facilitator instructor. All assignments must be completed and must be turned in by their due dates and due times. Extensions may be granted, though only under mitigating circumstances.

Discussion Grading Rubric

Graded discussion periods are held From Tuesday of each module until 6:00 AM ET on Tuesday of the following module. You are certainly welcome to continue a discussion past the grading period, but additional material posted beyond the due date will not affect your discussion grade. The discussion grading rubric below is the guide we use to evaluate your discussion contributions. You will receive a grade and comments from your facilitator for each module's discussions.

Discussion Grading Rubric					
Criteria	5–6	6–7	7–8	8–9	9–10
Participation	Very limited participation	Participation generally lacks frequency or relevance	Reasonably useful relevant participation during the discussion period	Frequently relevant and consistent participation throughout the discussion period	Continually relevant and consistent participation throughout the discussion period
Community	Mostly indifferent to discussion	Little effort to keep discussions going or provide help	Reasonable effort to respond thoughtfully, provide help, and/or keep discussions going	Often responds thoughtfully in a way that frequently keeps discussions going and provides help	Continually responds thoughtfully in a way that consistently keeps discussions going and provides help

Content	No useful, on- topic, or interesting information , ideas, or analysis	Hardly any useful, on- topic, or interesting information, ideas, or analysis	Reasonably useful, on- topic, and interesting information, ideas, and/or analysis	Frequently useful, on- topic, and interesting information, ideas, and analysis	Exceptionally useful, on- topic, and interesting information, ideas, and analysis
Reflection and Synthesis			No significant effort to clarify, summarize, or synthesize topics raised in discussions	Contributes to group's effort to clarify, summarize, or synthesize topics raised in discussions	Leads group's effort to clarify, summarize, or synthesize topics raised in discussions

Policy for the Use of Generative AI

Students should learn how to use AI text generators and other AI-based assistive resources (collectively, AI tools) to enhance rather than damage their developing abilities as writers, coders, communicators, and thinkers.

When using Generative AI in coursework, students shall:

1. Give credit to AI tools whenever used, even if only to generate ideas rather than usable text or illustrations.
2. When using AI tools on assignments, add an appendix showing (a) the entire exchange, highlighting the most relevant sections; (b) a description of precisely which AI tools were used (e.g. ChatGPT private subscription version or DALL-E free version), (c) an explanation of how the AI tools were used (e.g. to generate ideas, turns of phrase, elements of text, long stretches of text, lines of argument, pieces of evidence, maps of conceptual territory, illustrations of key concepts, etc.); (d) an account of why AI tools were used (e.g. to save time, to surmount writer's block, to stimulate thinking, to handle mounting stress, to clarify prose, to translate text, to experiment for fun, etc.).

3. Not use AI tools during in-class examinations, or assignments, unless explicitly permitted and instructed.
4. Employ AI detection tools and originality checks prior to submission, ensuring that their submitted work is not mistakenly flagged.
5. Use AI tools wisely and intelligently, aiming to deepen understanding of subject matter and to support learning.

For more details, please see the [Generative AI Assistance \(GAIA\) policy](#).

Course Policies and Academic Conduct

Academic Integrity: Plagiarism is the passing off of another's words or ideas as your own, and it is a serious academic offense. Plagiarism and cheating also defeat the purpose of getting an education. Plagiarism and cheating cases will be handled in accordance with the disciplinary procedures described in the Academic Conduct Code. You are expected to know and abide by the code, which can be read online: [Academic Conduct Code](#). Penalties range from failing an assignment or course (first offense) to suspension or expulsion from BU. If in doubt, cite your source. If you have any questions about academic integrity, please ask your instructor.

Incidents of academic misconduct will be reported to the Academic Conduct Committee (ACC). The ACC may suspend/expel students found guilty of misconduct.

Important Message on Final Exams

Dear Boston University Computer Science Online Student,

As part of our ongoing efforts to maintain the high academic standard of all Boston University programs, including our online MSCIS degree program, the Computer Science Department at Boston University's Metropolitan College requires that each of the online courses includes a proctored final examination.

By requiring proctored finals, we are ensuring the excellence and fairness of our program. The final exam is administered online.

Specific information regarding final-exam scheduling will be provided approximately two weeks into the course. This early notification is being given so that you will have enough time to plan for where you will take the final exam.

I know that you recognize the value of your Boston University degree and that you will support the efforts of the University to maintain the highest standards in our online degree program.

Thank you very much for your support with this important issue.

Regards,

Professor Lou Chitkushev, Ph.D.
Associate Dean for Academic Affairs
Boston University Metropolitan College

Disability and Access Services

In accordance with university policy, every effort will be made to accommodate students with respect to speech, hearing, vision, or other disabilities. Any student who may need an accommodation for a documented disability should contact [Disability and Access Services](#) at 617-353-3658 or at access@bu.edu for review and approval of accommodation requests.

Once a student receives their accommodation letter, they must send it to their instructor and/or facilitator each semester. They must also send a copy to their Faculty & Student Support Administrator, who may need to update the course settings to ensure accommodation is in place. Accommodation cannot be implemented if the students do not send their letters.