Syllabus

This is a single, concatenated file, suitable for printing or saving as a PDF for offline viewing. Please note that some animations or images may not work.

Description

This module is also available as a concatenated page, suitable for printing or saving as a PDF for offline viewing.

MET CS 566
Analysis of Algorithms

This course teaches theoretical backgrounds for design and analyzing algorithms, as well as practical implementation methods. The course starts with a review of principles of algorithm analysis and includes divide and conquer, dynamic programming, greedy programming, matrix operations, and extend them to advance topics of linear programming. Students should be familiar with basic data structures and basic Python programming. Weekly course assignments include both theoretical analysis and practical algorithmic implementation in python.

Prerequisite: MET CS 521 (Information Structures with Python) and MET CS 526 (Data Structures and Algorithms), or instructor's consent

Technical Notes

The table of contents expands and contracts (+/- sign) and may conceal some pages. To avoid missing content pages, you are advised to use the next/previous page icons in the top right corner of the learning modules.

This course requires you to access files such as word documents, PDFs, and/or media files. These files may open in your browser or be downloaded as files, depending on the settings of your browser.

Learning Objectives

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

- Implement algorithm with the theoretical backgrounds of computer science analysis and design, as well as practical implementation methods.
- Understand the concepts of asymptotic notation in the analysis of algorithms and its usage in comparing algorithm performance.
- Understand the concepts of divide and conquer algorithms and its usage in algorithm design.
- Understand the concepts of hashing, binary search trees, graph algorithms, and dynamic programming.
- Describe advance analysis of algorithm topics like NP-Completeness and NP-Hard problems.

Instructor and Course Developer: Kia Teymourian

Kia Teymourian, PhD
Computer Science Department
Metropolitan College
Boston University

1010 Commonwealth Avenue
Boston, MA 02215

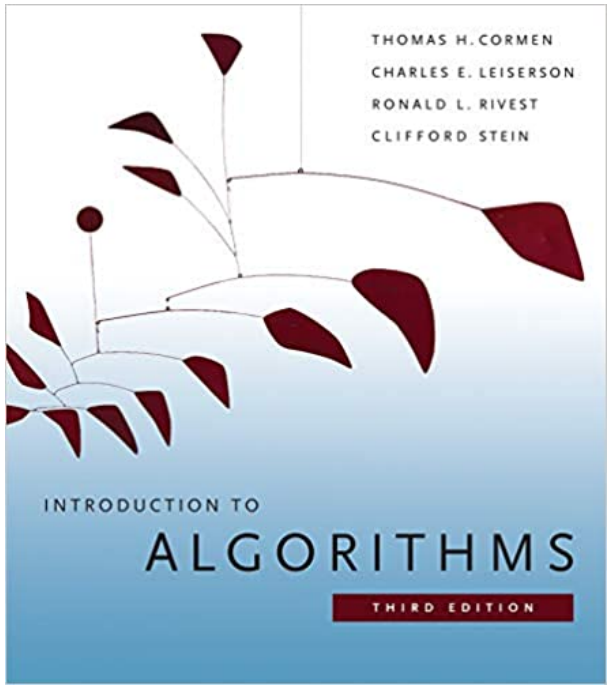
Office Hours: By Appointment Only
Email: kiat@bu.edu

Dr. Kia Teymourian is an Assistant Professor of Computer Science at Boston University's Metropolitan College. Dr. Teymourian holds a PhD from Freie Universität Berlin as well as a MS and BS from Berlin University of Technology (TU-Berlin). His computer science expertise lies in data stream processing and complex event processing, big data programming, semantic technologies, and knowledge representation, as well as web technologies and natural language processing. He has made important contributions to multiple large and international research projects, including several funded by the European Commission, the German Federal Ministry of Education and Research (BMBF), and the DARPA Pliny Project at Rice University. He is a senior member of Institute of Electrical and Electronics Engineers (IEEE), and a member of the Association for Computing Machinery (ACM). At Metropolitan College, Dr. Teymourian teaches data analysis and visualization, as well as software design patterns.

Additional information can be found on Dr. Teymourian's Academic Website

Materials

Required Book



Cormen, T. H., Leiserson, C. E., Rivest, R. L., & Stein, C. (2009). *Introduction to Algorithms*. 3rd ed.
The MIT Press.

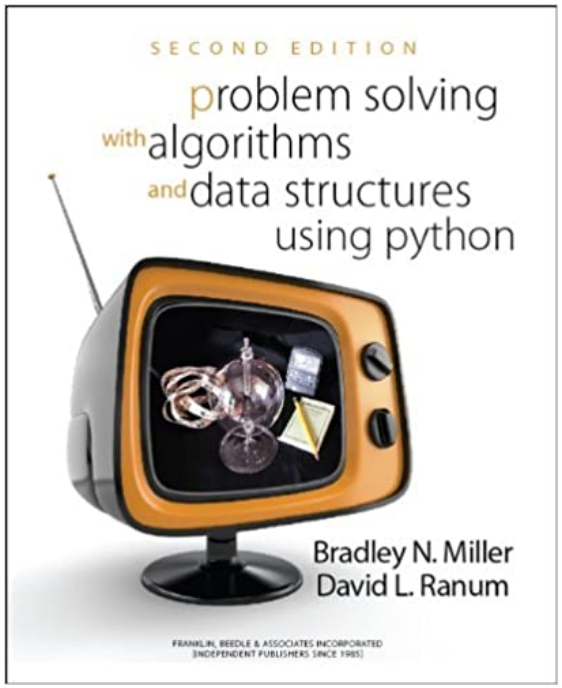
ISBN: 978-0262033848.

This book can be purchased from Barnes and Noble at Boston University. An e-book is available from the MIT Press.

Note: We refer to the book as CLRS book in the course.

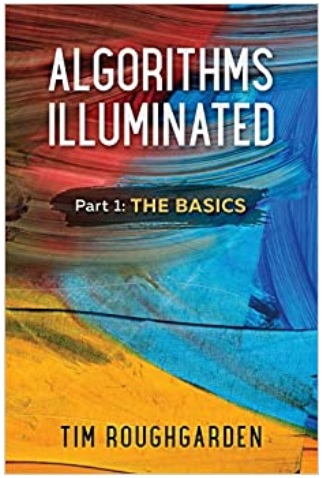
Recommended Books

There will be no reading assignments from the recommended books.



Miller, B., & Ranum, D. (2011). *Problem Solving with Algorithms and Data Structures Using Python*. 2nd ed. Franklin, Beedle & Associates.

ISBN: 978-1590282571.

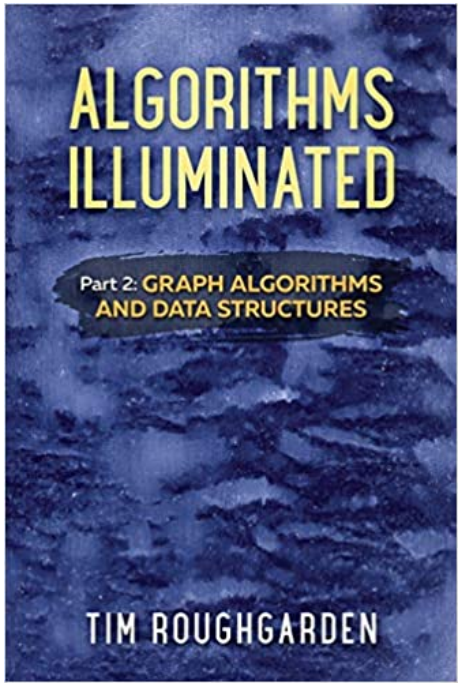


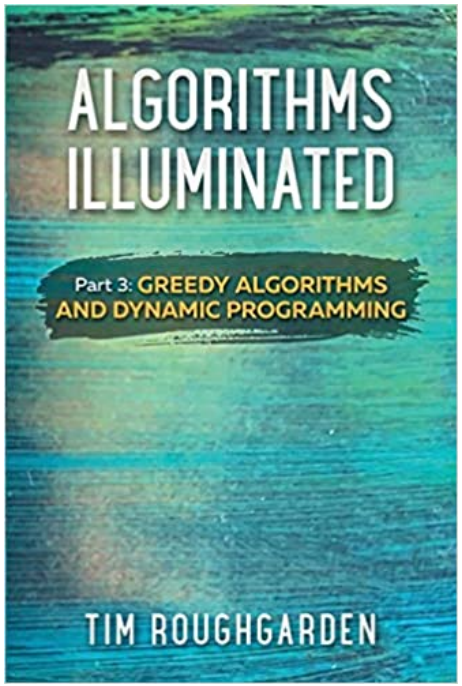
Roughgarden, T. (2017). *Algorithms Illuminated (Part 1): The Basics*. Soundlikeyourself Publishing.

ISBN: 978-0999282908.

Roughgarden, T. (2018). *Algorithms Illuminated (Part 2): Graph Algorithms and Data Structures*. Soundlikeyourself Publishing.

ISBN: 978-0999282922.



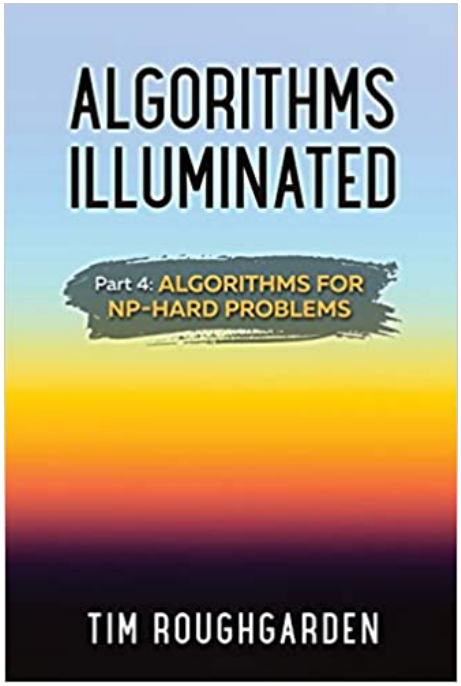


Roughgarden, T. (2019). *Algorithms Illuminated (Part 3): Greedy Algorithms and Dynamic Programming*. Soundlikeyourself Publishing.

ISBN: 978-0999282946.

Roughgarden, T. (2020). *Algorithms Illuminated (Part 4): Algorithms for NP-Hard Problems*. Soundlikeyourself Publishing.

ISBN: 978-0999282960.



Boston University Library Information

Boston University has created a set of videos to help orient you to the online resources at your disposal. An introduction to the series is below:

met_ode_library_14_sp1_00_intro video cannot be displayed here

All of the videos in the series are available on the Online Library Resources page, which is also accessible from the Campus Bookmarks section of your Online Campus Dashboard. Please feel free to make use of them.

As Boston University students, you have full access to the BU Library. From any computer, you can gain access to anything at the library that is electronically formatted. To connect to the library, use the link http://www.bu.edu/library. You may use the library's content whether you are connected through your online course or not, by confirming your status as a BU community member using your Kerberos password.

Once in the library system, you can use the links under “Resources” and “Collections” to find databases, eJournals, and eBooks, as well as search the library by subject. Some other useful links follow:

Go to Collections to access eBooks and eJournals directly.

If you have questions about library resources, go to Ask a Librarian to email the library or use the live-chat feature.

To locate course eReserves, go to Reserves.

Please note that you are not to post attachments of the required or other readings in the water cooler or other areas of the course, as it is an infringement on copyright laws and department policy. All students have access to the library system and will need to develop research skills that include how to find articles through library systems and databases.

Free Tutoring Service

Free online tutoring with Smarthinking is available to BU online students for the duration of their courses. The tutors do not rewrite assignments, but instead teach students how to improve their skills in the following areas: writing, math, sciences, business, ESL, and Word/Excel/PowerPoint.

You can log in directly to Smarthinking from Online Campus by using the link in the left-hand navigation menu of your course.

YouTube

Please Note

Smarthinking may be used only for current Boston University online courses and career services. Use of this service for purposes other than current coursework or career services may result in deactivation of your Smarthinking account.

Study Guide

Module 1 Study Guide and Deliverables

Theme: Review of Principles of Algorithm Analysis

Topics:

- What is an Algorithm?
- Growth of Functions
- Asymptotic Notation
- Big Theta, Big O and Big Omega Notation
- Insertion sort
- Asymptotic Costs of Programs
- Big O of Python Code Snippet

Readings: Lecture material

Assignments: Assignment 1 due Tuesday, September 14 at 6:00 AM ET.

- Submit at “Assignments (Gradescope)” on the left-hand course menu.

Live Classroom: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, September 8 at 6:00 – 7:15 PM ET
- Friday, September 10 at 6:00 – 7:15 PM ET
- Monday, September 13 at 6:00 – 7:15 PM ET
- Live office hours with a facilitator: TBD

Module 2 Study Guide and Deliverables

Theme: Divide and Conquer, Sorting

Topics:

- Divide and Conquer – Merge sort
- Divide and Conquer – Strassen’s algorithm
- Recurrences
- Recursion-tree method
- Heaps and Heap sort

Readings: Lecture material

Assignments: Assignment 2 due Tuesday, September 21 at 6:00 AM ET

- Submit at “Assignments (Gradescope)” on the left-hand course menu.

Live Classroom: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, September 15 at 6:00 – 7:15 PM ET
- Monday, September 20 at 6:00 – 7:15 PM ET
- Live office hours with a facilitator: TBD

Module 3 Study Guide and Deliverables

Theme: Heapsort, Hashing and Searching

Topics:

- Hash Tables
- hashing with chaining
- Amortized Analysis
- Binary Search Trees
- Insertion and Deletion in Trees

Readings: Lecture material

Assignments:

- Assignment 3 due Tuesday, September 28 at 6:00 AM ET (through “Assignments (Gradescope)”)
- The term project guideline will be published at the end of Module 3.

Live Classrooms: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, September 22 at 6:00 – 7:15 PM ET
- Monday, September 27 at 6:00 – 7:15 PM ET

- Live office hours with a facilitator: TBD

Module 4 Study Guide and Deliverables

Theme: Graphs

Topics:

- Breadth-first search (BFS)
- Depth-first search (DFS), topological sorting
- Single-source shortest paths problem
- Dijkstra
- Bllman-Ford

Readings: Lecture material

Assignments:

- Assignment 4 due Tuesday, October 5 at 6:00 AM ET (through “Assignments (Gradescope)”)
- Begin work on Midterm assignment. You have two weeks to complete, which is due by the end of Module 5.

Live Classroom: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, September 29 at 6:00 – 7:15 PM ET
- Monday, October 4 at 6:00 – 7:15 PM ET
- Live office hours with a facilitator: TBD

Module 5 Study Guide and Deliverables

Theme: Dynamic Programming

Topics:

- Elements of dynamic programming
- Fibonacci
- Shortest Paths
- The Principles of Dynamic Programming
- Text justification, blackjack

Readings: Lecture material

Assignments:

- Assignment 5 due Tuesday, October 12 at 6:00 AM ET (through “Assignments (Gradescope)”)
- Midterm Assignment due Tuesday, October 12 at 6:00 AM ET (through “Assignments (Gradescope)”)

Live Classroom: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, October 6 at 6:00 – 7:15 PM ET
- Monday, October 11 at 6:00 – 7:15 PM ET
- Live office hours with a facilitator: TBD

Module 6 Study Guide and Deliverables

Theme: BST, Greedy Algorithms and Computational Complexity

Topics:

- Parenthesization, edit distance, knapsack (Dynamic Programing)
- Recursive Activity Selector (Greedy)
- Computational complexity

- P and NP, NP-Completeness, NP-Hard Problems

Readings: Lecture material

Assignments:

- Term Project Presentation due Tuesday, October 19 at 6:00 AM ET
  - Share video presentation at “Media Gallery” on the left-hand course menu.
  - **How to record a video and share at the "Media Gallery” section?** Check out the direction to use Kaltura to capture and post or submit video.
  - Submit presentation slides and programming files at “Assignments (Term Project)” on the left-hand course menu.

Live Classroom: Live lecture will include 60 minutes lectures and 30 minutes Q&A at the end of each lecture.

- Wednesday, October 13 at 6:00 – 7:15 PM ET
- Monday, October 18 at 6:00 – 7:15 PM ET
- Live office hours with a facilitator: TBD

Final Exam Details

The Final Exam is a proctored exam available from **October 20 at 6:00 AM ET to October 23 at 11:59 PM ET**.

The Computer Science department requires that all final exams be administered using an online proctoring service called Examity that you will access via your course in Blackboard. In order to take the exam, you are required to have a working webcam and computer that meets Examity’s system requirements. A detailed list of those requirements can be found on the How to Schedule page (“Proctored Final Exam Information” module at the course home page). Additional information regarding your proctored exam will be forthcoming from the Assessment Administrator. You will be responsible for scheduling your own appointment within the defined exam window.

The Final Exam is accessible only during the final exam period. You can access it from the “Assessments” section of the course. Your proctor will enter the password to start the exam.

Final Exam Duration: two hours.

It is an **open-book/open-note exam**: any print and electronic materials are allowed, including electronic versions of textbooks, lecture module PDFs, and internet resources.

Grading Information

Grading Structure and Distribution

The grade for the course is determined by the following, including both theoretical algorithmic analysis as well as practical implementation in python:

Overall Grading Percentages

Five Assignments	40
Midterm Assignment	20
Term Presentation	10
Proctored Final Exam	30

Graded Items:

- **Assignments**: From Module 1 to Module 5, there is one assignment at the end of each module. There are a total of five assignments.
    - We are using Gradescope for submitting assignments of this class.

      Gradescope for Assignments

      Please watch the video tutorial or follow the step-by-step guide to learn how you can submit your assignments.

    - You can access and submit the assignment at the “Assignments (Gradescope)” section on the left-hand course menu.
- **Midterm Assignment**: A midterm assignment is similar to other module assignments but includes more advanced tasks. It includes questions related to the module 1 to the end of module 3. Students will have two weeks to complete the midterm assignment.
    - Access and submit the midterm assignment at the “Assignments (Gradescope)” section on the left-hand course menu.
- **Term Project Presentation**: Students learn one topic out of a list of topics, and prepare a presentation video and/or implementation of the algorithm.
    - Term project guidelines will be published at the end of Module 3.
    - In the final project presentation, students will present a topic and record a video between 8 to 12 minutes
        - Share the term project presentation video at the “Media Gallery” section.
        - **How to record a video and share at the “Media Gallery” section?** Check out the direction to use Kaltura to capture and post or submit video.
- **Proctored Final Exam:** There will be a proctored Final Exam in this course using a proctor service called Examity. Detailed instructions regarding your proctored exam will be forthcoming from the Assessment Administrator. You will be responsible for scheduling your own appointment.
    - Access and take the Final Exam at the “Assessments” section on the left-hand course menu.

Class Policies

1. Assignment Completion & Late Work: We recognize that emergencies occur in professional and personal lives. If one occurs that prevents your completion of homework by a deadline, please share the plan with your facilitator or instructor. This must be done in advance of the deadline (unless the emergency makes this impossible, of course), and should be accompanied by particulars that back it up. Additional documentation may be requested. Late submissions without reasons will result in grade deduction. **Late homework can be accepted up to 48 hours after the due date. 10% penalty will be applied after 24 hours and 20% after 48 hours, and after that we will not accept any late submissions.**
2. Academic Conduct Code: Cheating and plagiarism will not be tolerated in any Metropolitan College course. They will result in no credit for the assignment or examination and may lead to disciplinary actions.

Ungraded Items:

- **Ungraded Piazza Discussion Board:** There are ungraded discussion forums throughout the course, access at the “Discussion Board (Piazza)” section on the left-hand course menu. You are encouraged to ask course related questions, share your knowledge, and learn from your peers. Discussions forums are provided for your benefit. Some discussion forums involve the instructional staff; others are among students.

Academic Conduct Policy

Please visit Metropolitan College's website for the full text of the department's *Academic Conduct Code*.

A Definition of Plagiarism

> “The academic counterpart of the bank embezzler and of the manufacturer who mislabels products is the plagiarist: the student or scholar who leads readers to believe that what they are reading is the original work of the writer when it is not. If it could be assumed that the distinction between plagiarism and honest use of sources is perfectly clear in everyone’s mind, there would be no need for the explanation that follows; merely the warning with which this definition concludes would be enough. But it is apparent that sometimes people of goodwill draw the suspicion of guilt upon themselves (and, indeed, are guilty) simply because they are not aware of the illegitimacy of certain kinds of “borrowing” and of the procedures for correct identification of materials other than those gained through independent research and reflection.”
>
> “The spectrum is a wide one. At one end there is a word-for-word copying of another’s writing without enclosing the copied passage in quotation marks and identifying it in a footnote, both of which are necessary. (This includes, of course, the copying of all or any part of another student’s paper.) It hardly seems possible that anyone of college age or more could do that without clear intent to deceive. At the other end there is the almost casual slipping in of a

particularly apt term which one has come across in reading and which so aptly expresses one's opinion that one is tempted to make it personal property."

"Between these poles there are degrees and degrees, but they may be roughly placed in two groups. Close to outright and blatant deceit-but more the result, perhaps, of laziness than of bad intent-is the patching together of random jottings made in the course of reading, generally without careful identification of their source, and then woven into the text, so that the result is a mosaic of other people's ideas and words, the writer's sole contribution being the cement to hold the pieces together. Indicative of more effort and, for that reason, somewhat closer to honest, though still dishonest, is the paraphrase, and abbreviated (and often skillfully prepared) restatement of someone else's analysis or conclusion, without acknowledgment that another person's text has been the basis for the recapitulation."

Academic Conduct Code

I. **Philosophy of Discipline**

The objective of Boston University in enforcing academic rules is to promote a community atmosphere in which learning can best take place. Such an atmosphere can be maintained only so long as every student believes that his or her academic competence is being judged fairly and that he or she will not be put at a disadvantage because of someone else's dishonesty. Penalties should be carefully determined so as to be no more and no less than required to maintain the desired atmosphere. In defining violations of this code, the intent is to protect the integrity of the educational process.

II. **Academic Misconduct**

Academic misconduct is conduct by which a student misrepresents his or her academic accomplishments, or impedes other students' opportunities of being judged fairly for their academic work. Knowingly allowing others to represent your work as their own is as serious an offense as submitting another's work as your own.

III. **Violations of this Code**

Violations of this code comprise attempts to be dishonest or deceptive in the performance of academic work in or out of the classroom, alterations of academic records, alterations of official data on paper or electronic resumes, or unauthorized collaboration with another student or students. Violations include, but are not limited to:

A. **Cheating on examination**. Any attempt by a student to alter his or her performance on an examination in violation of that examination's stated or commonly understood ground rules.
B. **Plagiarism.** Representing the work of another as one's own. Plagiarism includes but is not limited to the following: copying the answers of another student on an examination, copying or restating the work or ideas of another person or persons in any oral or written work (printed or electronic) without citing the appropriate source, and collaborating with someone else in an academic endeavor without acknowledging his or her contribution. Plagiarism can consist of acts of commission-appropriating the words or ideas of another-or omission failing to acknowledge/document/credit the source or creator of words or ideas (see below for a detailed definition of plagiarism). It also includes colluding with someone else in an academic endeavor without acknowledging his or her contribution, using audio or video footage that comes from another source (including work done by another student) without permission and acknowledgement of that source.
C. **Misrepresentation or falsification of data** presented for surveys, experiments, reports, etc., which includes but is not limited to: citing authors that do not exist; citing interviews that never took place, or field work that was not completed.
D. **Theft of an examination**. Stealing or otherwise discovering and/or making known to others the contents of an examination that has not yet been administered.
E. **Unauthorized communication during examinations**. Any unauthorized communication may be considered prima facie evidence of cheating.
F. **Knowingly allowing another student to represent your work as his or her own**. This includes providing a copy of your paper or laboratory report to another student without the explicit permission of the instructor(s).
G. **Forgery, alteration, or knowing misuse of graded examinations, quizzes, grade lists, or official records of documents**, including but not limited to transcripts from any institution, letters of recommendation, degree certificates, examinations, quizzes, or other work after submission.
H. **Theft or destruction of examinations or papers** after submission.
I. **Submitting the same work in more than one course** without the consent of instructors.
J. **Altering or destroying another student's work or records**, altering records of any kind, removing materials from libraries or offices without consent, or in any way interfering with the work of others so as to impede their academic performance.
K. **Violation of the rules governing teamwork**. Unless the instructor of a course otherwise specifically provides instructions to the contrary, the following rules apply to teamwork: 1. No team member shall intentionally restrict or inhibit another team member's access to team meetings, team work-in-progress, or other team activities without the express authorization of the instructor. 2. All team members shall be held responsible for the content of all teamwork submitted for evaluation as if each team member had individually submitted the entire work product of their team as their own work.
L. **Failure to sit in a specifically assigned seat during examinations.**
M. **Conduct in a professional field assignment that violates the policies and regulations of the host school or agency.**
N. **Conduct in violation of public law occurring outside the University that directly affects the academic and professional status of the student, after civil authorities have imposed sanctions.**
O. **Attempting improperly to influence the award of any credit, grade, or honor.**
P. **Intentionally making false statements to the Academic Conduct Committee or intentionally presenting false information to the Committee.**
Q. **Failure to comply with the sanctions imposed under the authority of this code.**

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

Who's Who: Roles and Responsibilities

You will meet many BU people in this course and program. Some of these people you will meet online, and some you will communicate with by email and telephone. There are many people behind the scenes, too, including instructional designers, faculty who assist with course preparation, and video and animation specialists.

People in Your Online Course in Addition to Your Fellow Students

Your Facilitator. Our classes are divided into small groups, and each group has its own facilitator. We carefully select and train our facilitators for their expertise in the subject matter and their excellence in teaching. Your facilitator is responsible for stimulating discussions in pedagogically useful areas, for answering your questions, and for grading homework assignments, discussions, term projects, and any manually graded quiz or final-exam questions. If you ask your facilitator a question by email, you should get a response within 24 hours, and usually faster. If you need a question answered urgently, post your question to one of the urgent help topics, where everyone can see it and answer it.

Your Professor. The professor for your course has primary responsibility for the course. If you have any questions that your facilitator doesn't answer quickly and to your satisfaction, then send your professor an email in the course, with a cc to your facilitator so that your facilitator is aware of your question and your professor's response.

Your Faculty and Student Support Administrator, Jeff Behn. Jeff is here to ensure you have a positive online experience. You will receive emails and announcements from him throughout the semester. Jeff represents Boston University's university services and works for the Office of Distance Education. He prepares students for milestones such as course launch, final exams, and course evaluations. He is a resource to both students and faculty. For example, he can direct your university questions and concerns to the appropriate party. He also handles general questions regarding Online Campus functionality for students, faculty, and facilitators, but he does not provide tech support. He is enrolled in all classes and can be contacted within the course through Online Campus email as it is running. You can also contact him by external email at jeffbehn@bu.edu or call (617) 358-1985.

People Not in Your Online Course

Although you will not normally encounter the following people in your online course, they are central to the program. You may receive emails or phone calls from them, and you should feel free to contact them.

Your Computer Science Department Online Program Coordinator, Peter Mirza. Peter administers the academic aspects of the program, including admissions and registration. You can ask him questions about the program, registration, course offerings, graduation, or any other program-related topic. He can be reached at metcsol@bu.edu or (617) 353-2566.

Your Computer Science Department Program Manager, Kim Crosta. Kim is responsible for administering most aspects of the Computer Science Department. You can reach Kim at kimrich@bu.edu or (617) 353-2566.

Andrew Gorlin, Academic Advisor. Reviews requests for transfer credits and waivers. Advises students on which courses to take to meet their career goals. You can reach Andrew at asgorlin@bu.edu, or (617)-353-2566.

Professor Anatoly Temkin, Computer Science Department Chairman. You can reach Professor Temkin at temkin@bu.edu or at 617-353-2566.

Professor Lou T. Chitkushev, Associate Dean for Academic Affairs, Metropolitan College. Dr. Chitkushev is responsible for the academic programs of Metropolitan College. Contact Professor Chitkushev with any issues that you feel have not been addressed adequately. The customary issue-escalation sequence after your course facilitator and course faculty is Professor Temkin, and then Professor Chitkushev.

Professor Tanya Zlateva, Metropolitan College Dean Dr. Zlateva is responsible for the quality of all the academic programs at 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 accommodations are in place. Accommodations cannot be implemented if the student does not send their letter.

Netiquette

The Office of Distance Education has produced a netiquette guide to help you understand the potential impact of your communication style.

Before posting to any discussion forum, sending an email, or participating in any course or public area, please consider the following:

Ask Yourself…

- How would I say this in a face-to-face classroom or if writing for a newspaper, public blog, or wiki?
- How would I feel if I were the reader?
- How might my comment impact others?
- Am I being respectful?
- Is this the appropriate area or forum to post what I have to say?

Writing

When you are writing, please follow these rules:

- **Stay polite and positive in your communications.** You can and should disagree and participate in discussions with vigor; however, when able, be constructive with your comments.
- **Proofread your comments before you post them.** Remember that your comments are permanent.
- **Pay attention to your tone.** Without the benefit of facial expressions and body language, your intended tone or the meaning of the message can be misconstrued.
- **Be thoughtful and remember that classmates' experience levels may vary.** You may want to include background information that is not obvious to all readers.
- **Stay on message.** When adding to existing messages, try to maintain the theme of the comments previously posted. If you want to change the topic, simply start another thread rather than disrupt the current conversation.
- **When appropriate, cite sources.** When referencing the work or opinions of others, make sure to use correct citations.

Reading

When you are reading your peers' communication, consider the following:

- **Respect people's privacy.** Don't assume that information shared with you is public. Your peers may not want personal information shared. Please check with them before sharing their information.
- **Be forgiving of other students' and instructors' mistakes.** There are many reasons for typos and misinterpretations. Be gracious and forgive other's mistakes or point them out privately and politely.
- **If a comment upsets or offends you, reread it and/or take some time before responding.**

Important Note

Don't hesitate to let your instructor or your faculty and student support administrator know if you feel others are inappropriately commenting in any forum.

All Boston University students are required to follow academic and behavioral conduct codes. Failure to comply with these conduct codes may result in disciplinary action.

Registration Information and Important Dates

View the drop dates for your course.

Withdraw or drop your course.

- If you are dropping down to zero credits for a semester, please contact your college or academic department.
- **Nonparticipation in your online course does not constitute a withdrawal from the class.**
- If you are unable to drop yourself on Student Link, please contact your college or academic department.

Technical Support

Help Desk

Boston University IT Help Desk can be reached via email (ithelp@bu.edu), phone (617-353-4357) or by filling out the support form on their website. For IT Help Desk hours of operation, visit the contact page. If you are contacting IT outside of business hours, you will receive a response the following day. Visit the BU Information Services & Technology (IS&T) news page for announcements and system-wide alerts.

Technology Requirements and Resources

To successfully view all content in your course, it is important that your computer setup meets the necessary minimum technical requirements. Certain courses with specific functionality or educational tools may require additional technical requirements, these details can be found on the Course Resources or Materials page in the Syllabus.

System Requirements

- Access to reliable, high-speed internet: Check your internet connection speeds
- Learning Management System (Blackboard): System Requirements
- Synchronous live classroom sessions (Zoom): System requirements for Windows, macOS, and Linux
- Courses with proctored exams (Examity): System requirements for Windows, macOS

Downloads

- Recommended web browsers: Mozilla Firefox or Google Chrome
- Synchronous live classroom sessions (Zoom): Zoom download center
- Courses with proctored exams (Examity): Desktop or laptop computer with Google Chrome or Microsoft Edge

Recommended Hardware

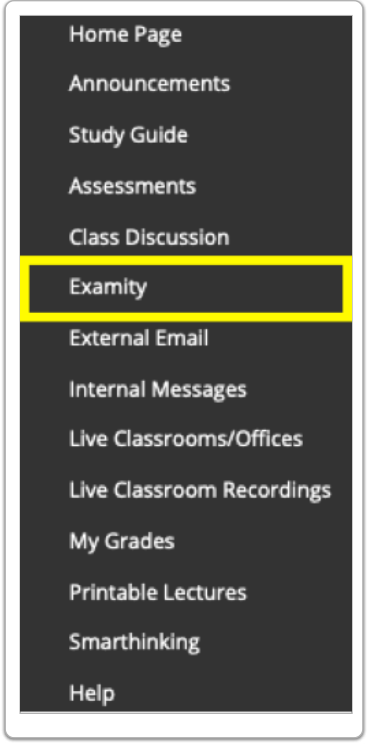
- Desktop or laptop computer recommended for best experience, some course functionality including proctored exams are not compatible with phones or tablets
- Headset with built-in microphone for high quality audio during live classroom sessions
- Webcam (required for proctored exams)
- Working computer speakers (required for proctored exams)

Clearing Your Browser Cache

It is recommended that users periodically clear their browser cache to ensure they are viewing the most current course content. Completing this step often resolves login issues and problems viewing course materials.

Proctored Exams

Courses with proctored exams will have an Examity link in the left-hand course navigation. This link will not appear until scheduling opens. The ODE Assessment Administrator will notify you when it is time to schedule your exam. Details on Examity's technical requirements and how to schedule your exam are in the Proctored Exam Information module on the course homepage. The Assessment Administrator can be reached at pexams@bu.edu. Examity support is available 24/7 via phone (855-392-6489), email (support@examity.com), or 'live chat' when logged in to the Examity dashboard.



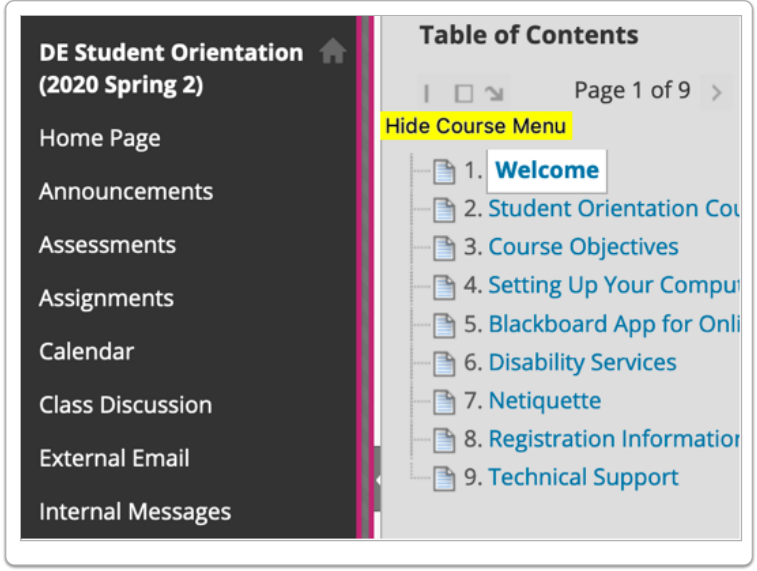
Navigating Courses

> While navigating through your courses it's important to note that all hyperlinks will open in a new browser window.

The Blackboard navigation tools, as shown in the images below; allow you to show and hide both the Course Menu and the Table of Contents which can free up space when moving through weekly lecture material.

The Table of Contents may contain folders that open and close (+ and − signs) and may conceal some pages. To avoid missing content pages, you are advised to use the next- and previous-page buttons (and icons) in the top-right corner of the learning content.

Navigation tools for the Table of Contents are shown in the image below:



Clicking the space between the Course Menu and the Table of Contents allows you to show or hide the Course Menu on the left: