Quantitative Methods for Information Systems

Course Description

The first part of this course lays down the mathematical foundation for the study of Probability Theory and Statistics; it will cover Functions, Combinatorial Mathematics, Differentiation and Integration fundamentals. The second part of the course concentrates on the study of Discrete and Continuous Distributions.

Prerequisites

High School Algebra

Course Overview

The following are some of the topics covered in this course:

- Elements of Discrete Mathematics (sets, one-to-one and onto functions, graphs of functions)
- Elements of Calculus (limit of sequences, continuous functions, derivative of functions, antiderivatives, and definite integrals)
- Elements of Combinatorics (permutations and combinations)

Technical Note

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.
Course Learning Objectives

Upon successful completion of this course, you will be able to:

- Differentiate functions, take antiderivatives, and find areas under curves.
- Apply combinatorial methods to analyzing problems.
- Apply methods from the Probability Theory and Statistics to analyzing events of random nature.
Course Outline

- Calendar Tool - You can see many due dates in the Vista calendar tool. You may add your own events there as well. However, please be aware that you may not find all of the important dates for the course listed there. You will stay current by checking announcements, discussions, and emails in the course.
- Readings - Each module has online lectures.
- Discussion - There are 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. Please see the Discussion Module on the home page for more details.
- Assignment - There are assignments that are due throughout the course. You can access them from the Assignments tool.
- Midterm Exam - The midterm exam can be access from the Assignments tool during the midterm exam period.
- Final Exam - The final exam can be accessed from the Assessments menu or the Final Exam module on the home page during the exam period.

Module 1

- Lecture 1 - Functions, images and preimages, one-to-one functions, limit of a sequence of numbers, continuous functions, derivatives of functions, rules of differentiation, points of local maximum and minimum, and graphs of functions.

Module 2

- Lecture 2 - Horizontal and vertical asymptotes, Inflection points, the antiderivative of a function, the definite integral of a function, and the fundamental theorem of calculus.

Module 3
• Lecture 3 - K-samples, permutations, combinations, sample space, events, and the classical and statistical definitions of probability.

Module 4

• Lecture 4 - Independent events, discrete random variables, binomial distribution, and the approximation of the binomial distribution.

Module 5

• Lecture 5 - Geometric distribution, the math expectation and the variance of a random variable, independent random variables, strong law of large numbers, and the properties of distribution functions.

Module 6

• Lecture 6 - Continuous distribution functions, density functions, the math expectation, and the variance of a continuous random variable, standard deviation, normal distribution, and the central limit theorem.

Module 7 - Prepare for and Take the Final Exam

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 your grades or the course. This is also a time when we enter into a dialog where we endeavor to learn from you how we can modify the course so that it better meets your needs.
Dr. Anatoly Temkin has been a BU faculty member since 1989. He has taught numerous graduate and undergraduate courses from the math and computer science curricula. He is currently a professor and a graduate student advisor in the Boston University Metropolitan College.
Study Guide

The following material is collected here for your convenience. The discussion and assignment details can be found within the modules, as well as in the "Discussion" section of the course, and in the "Assignment" sections respectively.

Module 1 Study Guide and Deliverables
Readings: Module 1 online content
Discussions: Please post your introduction as soon as possible. Discussion 1 postings due November 1 at 6:00 AM ET
Assignments: Assignment 1 due November 1 at 6:00 AM ET

Module 2 Study Guide and Deliverables
Readings: Module 2 online content
Discussions: Discussion 2 postings due November 8 at 6:00 AM ET
Assignments: Assignment 2 due November 8 at 6:00 AM ET

Module 3 Study Guide and Deliverables
Readings: Module 3 online content
Discussions: Discussion 3 postings due November 15 at 6:00 AM ET
Assignments: Assignment 3 due November 15 at 6:00 AM ET

Module 4 Study Guide and Deliverables
Readings: Module 4 online content
Discussions: Discussion 4 postings due November 22 at 6:00 AM ET
Assignments: Assignment 4 due November 22 at 6:00 AM ET
Assessments: The midterm exam opens on November 20 at 6:00 AM ET and is due November 22 at 6:00 AM ET
Module 5 Study Guide and Deliverables

Readings: Module 5 online content
Discussions: Discussion 5 postings due November 29 at 6:00 AM ET
Assignments: Assignment 5 due November 29 at 6:00 AM ET

Module 6 Study Guide and Deliverables

Readings: Module 6 online content
Discussions: Discussion 6 postings due December 6 at 6:00 AM ET
Assignments: Assignment 6 due December 6 at 6:00 AM ET

Module 7 Study Guide and Deliverables

Readings: There are no readings
Discussions: There are no discussions
Assignments: There are no assignments
Assessments: The final exam opens at 9:00 AM ET on Wednesday, December 8 and closes at 11:59 PM ET on Saturday, December 11.
Final Exam Details

The Final Exam is a proctored exam available from Wednesday, December 8 at 9:00 AM ET to Saturday, December 11 at 11:59 PM ET. The Computer Science department requires that all final exams be proctored.

The exam is a three-hour closed-book exam consisting of multiple-choice questions. It will only be accessible during the final exam period. You can access it from either the Assessments section of the course or from the Final Exam module on the home page. Your proctor will enter the password to start the exam.

Access to the online course material, including the lectures, discussions, and chat feature, ends on Wednesday, December 8 at 9:00 AM ET and will be unavailable until December 12. Please plan accordingly.

You will receive a technical support hotline number before the start of the exam. Please bring this number with you to the exam.
There are no required course textbooks for this class. The lectures will provide you with the necessary information. Although there will be no reading assignments from these books, they are excellent supplemental texts that you may want to review for further elaboration. Although they are not available through the BU bookstore, they can be found online.


**Required Course Software**

You must have an equation editor to complete your homework assignments in Microsoft Word. Microsoft Word with Microsoft Equation, is a free add-on to Microsoft Word.
Modules 1–6

You will find a number of videos incorporated into the lectures providing supplemental explanations of the text. These are streaming Flash videos that require a Flash player for your browser.

Homework Solutions

Your professor will release video solutions of all of your homework assignments in the Homework Solutions module on your home page. Please check the announcements from your professor for their availability.

Boston University Library Resources

As Boston University students you have full access to the BU libraries online resources. Previously known as the 'ezproxy' library portal, the new access for all BU students lets you connect to the BU Library’s electronic resources seamlessly. Use the link http://www.bu.edu/library You may use the library’s content regardless of whether you are logged into Vista or not. Outside of Vista, you will be prompted to confirm your status as a BU community member with your Kerberos login.

Using the links on the right side of the library’s home page, you can find articles, eJournals, and eBooks. You can easily search the libraries content by subject. In addition, through the "Reference Shelf," you will have access to dictionaries, encyclopedias, handbooks, and more. If you are having difficulties gaining access, please follow the instructions below.

Connect to eResources

Boston University’s Office of Information Technology and the Library offer an option for remote access to Boston University’s online library resources.

Previously remote students had to use what was called the 'ezproxy' library portal; the new access (still referred to as 'ezproxy') allows all BU students a seamless connection to the BU Library's electronic resources through the link: www.bu.edu/library

If you are having difficulties gaining access you may want to go to www.bu.edu/library/research/connecting.html. From this page you can access material directly using the links near the top of the page, where you will see the note, "eResources include databases, ejournals, and ebooks." Additional information about the ezportal system is also available in the links lower on the page, under the heading "authentication as a BU community member."

If you have any questions, please submit them using the following:
Accommodation of Special Needs

In accordance with University policy, I make every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other disabilities. Please notify Disability Support Services as soon as possible of requested accommodations.
Installing Microsoft Equation Editor

If Microsoft Equation Editor is not available, you may need to install it. If you originally installed Microsoft Office from a network file server or from a shared folder, you must install Equation Editor from that location. If you installed Office from a CD-ROM, you must install Equation Editor from the disc.

1. Quit all programs.
2. Click **Add or Remove Programs** in Control Panel.
3. In the **Currently installed programs** box, click the listing for Microsoft Office or Microsoft Word, depending on whether you installed Word as part of Office or as an individual program, and then click **Change**.
4. On the **Maintenance Mode Options** screen, click **Add or Remove Features**, and then click **Next**.
5. If a **Custom Setup** screen appears, select the **Choose advanced customization of applications** check box, and then click **Next**.
6. In the list of features to install, click the expand indicator (+) next to **Office Tools**.
7. Click the arrow next to **Equation Editor**, and then click **Run from My Computer**.
8. Click **Update**.

Insert an Equation

1. Click where you want to insert the equation.
2. On the **Insert** menu, click **Object**, and then click the **Create New** tab.
3. In the **Object type** box, click **Microsoft Equation 3.0**.
4. Click **OK**.
5. Build the equation by selecting symbols from the **Equation** toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, press ALT and then SHIFT+F10.) and by typing variables and numbers. From the top row of the **Equation** toolbar, you can choose from more than 150 mathematical symbols. From the bottom row, you can choose from a variety of templates or frameworks that contain symbols such as fractions, integrals, and summations.
This was extracted from the Microsoft Word help file.
Course References

Among books used in the preparation of this course were:


Course Grading Information

Course Grading Structure

For any graded learning activity (assignments, discussions, etc.), you will be assigned a numeric grade. The conversion to a letter grade is based on the following distribution:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-93</td>
<td>A</td>
</tr>
<tr>
<td>92-90</td>
<td>A-</td>
</tr>
<tr>
<td>89-87</td>
<td>B+</td>
</tr>
<tr>
<td>86-83</td>
<td>B</td>
</tr>
<tr>
<td>82-80</td>
<td>B-</td>
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<tr>
<td>79-77</td>
<td>C+</td>
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<tr>
<td>76-73</td>
<td>C</td>
</tr>
<tr>
<td>72-70</td>
<td>C-</td>
</tr>
<tr>
<td>69-60</td>
<td>D</td>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
</tr>
</tbody>
</table>

Grading Distribution

Your final grade for this course will be derived from the following:

- Discussions: 10%
- Homework Assignments: 35%
- Midterm Exam: 25%
Final Exam: 30%

Discussions

Graded Discussions - Students will be participating in discussions that will be graded on a 100-point scale: go to the Discussion Rubric

Note on Final Exam

The final exam is a proctored exam. It will consist of multiple choice questions. You will have three hours to complete the final exam. It will be a closed book and closed notes exam. You will be responsible for setting up your own appointment with an ACT testing center or an independent proctor. You can expect further information from student services during the third week of class.

Delays

If, for any reason, you are unable to meet any assignment or assessment deadline, contact your course facilitator. All assignments and assessments must be completed. Extensions may be granted under mitigating circumstances.

Proctored Final Exam

There will be a proctored Final Exam for this course. You will be responsible for setting up your own appointment with a testing center or an independent proctor. Student Services will provide you with directions in the third week of class.
Graded discussion periods are held Day 1 of each module until 6:00 AM ET on Day 1 of the following module. You’re certainly welcome to continue a discussion past the grading period, but that additional posted material will not affect your discussion grade. The discussion grading rubric below is the guide we use to evaluate your discussion contributions.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>51–60</th>
<th>61–70</th>
<th>71–80</th>
<th>81–90</th>
<th>91–100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participation</strong></td>
<td>Very limited participation</td>
<td>Participation generally lacks frequency or relevance</td>
<td>Reasonably useful relevant participation during the discussion period</td>
<td>Frequently relevant and consistent participation throughout the discussion period</td>
<td>Continually relevant and consistent participation throughout the discussion period</td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td>Mostly indifferent to discussion</td>
<td>Little effort to keep discussions going or provide help</td>
<td>Reasonable effort to respond thoughtfully, provide help, and/or keep discussions going</td>
<td>Often responds thoughtfully in a way frequently keeps discussions going and provides help</td>
<td>Continually responds thoughtfully in a way that consistently keeps discussions going and provides help</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>No useful, on-topic, or interesting</td>
<td>Hardly any useful, on-topic, or</td>
<td>Reasonably useful, on-topic,</td>
<td>Frequently useful, on-topic,</td>
<td>Exceptionally useful, on-topic,</td>
</tr>
<tr>
<td>Reflection and Synthesis</td>
<td>No significant effort to clarify, summarize or synthesize topics raised in discussions</td>
<td>Contributes to group's effort to clarify, summarize or synthesize topics raised in discussions</td>
<td>Leads group's effort to clarify, summarize or synthesize topics raised in discussions</td>
<td>and interesting information, ideas and/or analysis</td>
<td>and interesting information, ideas and/or analysis</td>
</tr>
</tbody>
</table>
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, and the access will be available at the exam sites.

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 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,

Dr. Lou Chitkushev
Chair Computer Science Department
Metropolitan College
Boston University
to take the exam.

We know that you recognize the value of your Boston University degree and fully support the efforts of the University to maintain the highest possible standards in our online degree program. Thank you for your participation. Further information will be forthcoming.

Regards,

Dr. Lou Chitkushev  
Chair Computer Science Department  
Metropolitan College  
Boston University
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.”

{The paragraphs above are from H. Martin and R. Ohmann, The Logic and Rhetoric of Exposition,
Academic Conduct Code

I. Philosophy of Discipline

The objective of Metropolitan College in enforcing academic rules is to promote the kind of community atmosphere in which learning can best take place. This 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 the dishonesty of someone else. Penalties imposed should be carefully determined so as to be no more or no less than required to maintain the desired atmosphere. In defining violation 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’ chances of being judged fairly for their academic work. Knowingly allowing others to represent your work as theirs is as serious an offense as submitting another's work as your own.

III. Violations of this Code

Violations of this code are acts that constitute an attempt to be dishonest or deceptive in the performance of academic work in or out of the classroom. To alter academic records, or to collaborate with another student or students is an act of academic misconduct. Violations include but are not limited to:

A. Cheating on examinations. 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. Any attempt by a student to represent the work of another as his or her own. Plagiarism includes each of the following: copying the answers of another student on an examination, copying or substantially restating the work of another person or persons in any oral or written work without citing the appropriate source, and collaboration with someone else in an academic endeavor without acknowledging his or her contribution (see above for a more detailed definition of plagiarism).

C. Misrepresentation or falsification of data presented for surveys, experiments, etc.

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 conversation is not allowed during examinations. Any unauthorized conversation may be considered prima facie evidence of cheating.

F. Knowingly allowing another student to represent your work as his or her own.

G. Forgery, alteration, or knowing misuse of graded examinations, grade lists, or official University records or documents, including but not limited to transcripts, letters of recommendation, degree certificates, alteration of examinations or other work after submission.

H. Theft or destruction of examinations or papers after submission including purposefully altering possible poor performance.

I. Submitting the same work in more than one course without the consent of the instructors involved.

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. Failure to comply with the sanctions imposed under the authority of this code.
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.

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 Manager of Student Services, Jen Sullivan. Jen is here to ensure you have a positive online experience. You will receive emails and announcements from Jen throughout the semester. Jen represents Boston University’s university services and works for the Office of Distance Education. She prepares students for milestones such as course launch, final exams, and course evaluations. She is a resource to both students and faculty. For example, Jen can direct your university questions and concerns to the appropriate party. She also handles general questions regarding Vista functionality for students, faculty, and facilitators, but she does not provide tech support. She is enrolled in all classes and can be contacted within the course through Vista email as it is running. You can also contact her by external email at jensul@bu.edu or call toll free at 1-888-524-2200.

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 Associate Chairman, Professor Anatoly Temkin.** Dr. Temkin is the Associate Chairman for both on-campus and online students. Professor Temkin advises students on appropriate courses and programs. He also makes decisions on petitions for course waivers and transfer of credits for courses taken at other institutions. You can reach Professor Temkin at temkin@bu.edu or at (617) 358-2566.

**Your Online Coordinator, Chris Hutchison-Jones.** Chris administers the academic aspects of the program, including admissions and registration. You can ask Chris questions about the program, registration, course offerings, graduation, or any other program-related topic. Chris can be reached at crhj@bu.edu or (617) 353-2565.

**Your Computer Science Department Program Coordinator, Camille Kardoose.** Camille is responsible for administering most aspects of the Computer Science Department, and she can help you with most matters. You can reach Camille at cgkardoo@bu.edu or (617) 353-2566.

**Your Online Faculty Coordinator, Robert Schudy.** Professor Schudy is responsible for the MSCIS online program. Feel free to contact Dr. Schudy at rschudy@bu.edu or (617)358-0009.

**Professor Lubomir T. Chitkushev, PhD Chairman, Computer Science Department, Boston University Metropolitan College.** Dr. Chitkushev is responsible for the Computer Science Department as a whole, including the MSCIS program. 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 Schudy and/or Professor Temkin, and then Professor Chitkushev.

**Professor Tanya Zlateva, Metropolitan College Associate Dean for Academic Affairs.** Dr. Zlateva is an Associate Professor in the Computer Science Department, our former chairman, and now the academic dean for the College. She is responsible for academic quality and other academic affairs throughout Metropolitan College.
Netiquette

If you’ve been with us in the online graduate program for a while, you’re probably pretty comfortable in this environment. But for those who are new or who may just want a refresher, here are some rules for communicating online which will help us all have a pleasant and rewarding online experience:

1. **Think of your discussion posts as though they were going to be printed in a newspaper.** Thinking of your posting this way should remind us not to write anything that might embarrass us or anyone else in the class. If you make a mistake and wish that you could take a post back, just send an email to your facilitator and the Professor, who can delete even graded posts.

2. **Feelings are helpful, but avoid negativity.** Our feelings, including our angst when we don’t understand something, our elation when someone else appreciates what we have written, and our sense of satisfaction when we know that we have helped someone else, all help us learn. It’s part of being human. Unfortunately another part of being human is the temptation to lash out against someone with whom we disagree. Angry words thrown at someone through the air are gone in a moment, and the apology afterwards can even help the relationship, but angry words thrown around in computer discussion threads or emails hang around forever to haunt us. Disagreement in discussions helps us gain other people’s insights and perspective and is critical to learning many of the finer points, so don’t hesitate to share your insights and opinions, even if they are very different than your classmates, but always be respectful, particularly in communications with others who may not agree with you.

3. **Remember the golden rule.** Imagine that you are the recipient of your post or email and write what you would like to receive if you were the recipient.

4. **Don’t type in all caps.** This is impolite, like shouting in an intimate setting.

5. **Be careful with acronyms.** Some students might not know their meaning. It is always better to spell them out, at least at the first use.

6. **Don’t disrupt discussion with unrelated comments.** Wait until the discussion is over to change the topic.

7. **Use the "Water Cooler" for posts that are social or outside the discussion category.**
The Water Cooler is helpful for building community, but students are not required to read Water Cooler posts. Putting your general posts in the Water Cooler helps your classmates who are pressed for time and also improves the continuity of the discussion threads.

8. **Be kind to people who may not have broadband connections.** Don't incorporate large graphics, videos or images into graded discussions unless this is necessary. Images in the "Introductions" posts help us build community, so they are encouraged, but these are not graded, so people can skip them if they need to. If you are citing something large from an outside source in a public area like a discussion forum, provide a web address or link and steer others to what you wish them to see.

9. **Think twice before posting to course-level discussions.** Different discussion topics have very different size audiences. The group discussions are visible to you, your facilitator, your professor, and student services – about fifteen people. Course level discussions are visible to the entire class, which may include one hundred or more students, ten or more facilitators, your professor, and student services. Think of addressing an audience of 100 when you are posting to the course-level discussions.

With your participation and cooperation, we're sure to have some lively, exciting discussions in this course.
Course Registration and Drop Dates

Go to www.bu.edu/online/online_course_schedule/important_dates to view the drop dates for your course.

Go to www.bu.edu/studentlink to withdraw or to drop your course.

- If you are dropping down to zero credits for a semester you will need to contact your college or academic department.
- Non-participation in your online course does not constitute a withdrawal from the class.

*Registration fee non-refundable
Course Technical Support

Technical Support

Assistance with Vista-related technical problems is provided by the Vista Support staff. To ensure the fastest possible response, please fill out the online form using the link below.

<table>
<thead>
<tr>
<th>Form</th>
<th><a href="http://www.bu.edu/help/vista">www.bu.edu/help/vista</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>(888) 243-4596</td>
</tr>
</tbody>
</table>

Support via email and phone is available Monday through Friday from **9 AM to 5 PM** Eastern Time; additional support hours are provided during exam periods and will be posted on the Vista homepage.

In addition, answers to many common questions and solutions to most problems are found in our database of [Frequently Asked Questions](#).

If you are having issues uploading a document to Vista, please consult the following link prior to contacting Tech Support: [How to Upload a File](#)

After-hours Support

Vista use and setup issues can be obtained by contacting Blackboard Support at **(800) 806-7396**. Contact Vista Support staff for assistance with technical problems that relate directly to the Vista system.

Examples include:

- Problems viewing or listening to sound or video files.
- Problems accessing Vista's internal email.
- Problems viewing or posting comments in the Vista
- Problems attaching or uploading files within Vista
Web Resources

To view certain media elements in this course you will need to have several browser plug-ins such as Shockwave, Flash, and Adobe Acrobat on your computer. See your Course Resources page for specific software requirements for use in this course.

To ensure you are using the most recent version of each plug-in you require click the hyperlink below for a description of technology requirements necessary to complete this course. Technology Requirements

Browser Plug-Ins

To view certain media elements in this course you will need to have several browser plug-ins such as Java, RealPlayer, Shockwave, Flash, and Adobe Acrobat on your computer. Use the links in the Syllabus Course Resources page for specific software requirements for use in this course and to download and install the appropriate software application.