1 Description

CMSC 102 is a historical and practical introduction to computer and network terminology, applications, and concepts. Students will have hands-on experience with a variety of tools available to find and access information on the Internet, to exchange information between computers, and to perform basic web design. Students will explore applications (such as browsers and spreadsheets) as well as different computing environments (such as Windows and UNIX). There will be discussions of social, legal, and ethical issues related to technology.

Some goals for students are as follows. To understand some of the history behind the technology we use today, and from this to envision and prepare for new technologies as they unfold. To study and use relevant terminology and underlying concepts of today’s technology. To explore both graphical and command-line operating systems. To use tools and information available on the Internet to gather ideas and facts, and then to organize and present these ideas in a professional manner. To consider and appreciate societal impact and implications of technology. To understand how there is a difference between technology advances at a technical level (the “can we do it” question) and their application to specific situations (the “should we do it or use it” question).

2 Contact information

<table>
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<tr>
<th></th>
<th>instructor</th>
<th>TA</th>
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<tbody>
<tr>
<td>Name</td>
<td>Larry Herman</td>
<td>Noseong Park</td>
</tr>
<tr>
<td>Phone</td>
<td>(301) 405–2762</td>
<td>N/A</td>
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<tr>
<td>Office</td>
<td>1111 A.V. Williams</td>
<td>1112 A.V. Williams</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:larry@cs.umd.edu">larry@cs.umd.edu</a></td>
<td><a href="mailto:npark@cs.umd.edu">npark@cs.umd.edu</a></td>
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Office hours will be provided soon.

3 Class webpage

Many course materials will be made available via the class webpage at www.cs.umd.edu/class/spring2012/cmsc102. Accessing the webpage will require an ID and password to be provided in class.

4 Required materials

There is no published textbook. Notes and various assignments will be provided via the class webpage.

Students will need to have:

- Their own University clicker (http://clickers.umd.edu/students/index_students.html), which is registered at the University site. The suggested model is the ResponseCard RF LCD but either the RF or XR keypad model will work as well. This will be used in class so it must be brought to class each day. It can be purchased online from http://store.turningtechnologies.com with code gGRS, or from the University Book Center or Maryland Book Exchange.
- A USB “keychain” drive or other device for backup copies of projects and writing assignment files.

5 Course evaluations

Course evaluations are important, and the computer science department and instructors take student feedback seriously. The evaluation system for this semester will be open between between Tuesday, April 24 and Friday, May 11, at www.courseevalum.umd.edu. However, and more importantly, rather than waiting until the end of the semester to give feedback, please bring up any questions or concerns during the course; preferably in person if possible. An instructor can’t do anything about any issues that arise that they are unaware of, so you are encouraged to bring any comments, questions, suggestions, or concerns to the instructor’s attention.

6 Attendance, assignments, and grades

Students are responsible for all academic and administrative material discussed in class, regardless of whether they were in class to hear the information or not. It’s understood that students may occasionally miss class for various reasons,
but email and office hours are not intended as a replacement for class attendance. A student who was not in class is expected to find out what was missed and to get notes from a classmate who was present.

Projects and papers will be assigned during the semester. Some of the projects may have multiple parts, some of which may have a separate due date. Some projects may include a writing component. On average, expect to have a project due every other week. Some projects (or parts) might be submitted in paper form, but most will be submitted electronically. Writing assignments will likely be submitted in electronic form as PDFs. Regular “clicker” polling will be a part of class activities. There will also be approximately five in-class discussions that will be graded for participation and quality and will be announced in advance during class.

Coursework will count toward the final grade according to the following percentages:

<table>
<thead>
<tr>
<th>coursework</th>
<th>description</th>
<th>weight</th>
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<tbody>
<tr>
<td>Midterms:</td>
<td>two midterms</td>
<td>25% (equally weighted)</td>
</tr>
<tr>
<td>Final:</td>
<td>will be comprehensive</td>
<td>30%</td>
</tr>
<tr>
<td>Projects:</td>
<td>expected five or six projects</td>
<td>30%</td>
</tr>
<tr>
<td>In-class discussion worksheets and individual papers:</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Clickers:</td>
<td></td>
<td>5%</td>
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Each project will be graded out of 100 points, but they may not be weighted equally. Their relative weights will be given near the end of the semester.

A request for reconsideration of the grading on any coursework should be submitted within a week of when it is returned. Exam regrading requests must be made in writing. Coursework submitted for reconsideration may be regraded in its entirety.

Final course grades will be curved if necessary, based on each student’s total numeric score for all coursework at the end of the semester.

7 Exam and final dates, and assignment due dates

The midterm exams will be held during lecture. The midterm dates will be confirmed later, and may vary depending on lecture progress, weather cancellations, or other factors. However, the intention is to have the midterms on these dates:

<table>
<thead>
<tr>
<th>Exam #1:</th>
<th>Monday, March 5</th>
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<tr>
<td>Exam #2:</td>
<td>Monday, April 16</td>
</tr>
<tr>
<td>Final exam:</td>
<td>Tuesday, May 15, 1:30–3:30 p.m.</td>
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The midterm exams will be given during the normal class period, in the first part of the class period. The second part of the period will be a separate graded class activity. University IDs must be available for inspection on exam days.

The final exam date and time are fixed by the University, and will be rescheduled only for students having another final at exactly the same time, or for students with three or more final exams scheduled on the same day. If either of these situations applies to you, you must inform the instructor at least two weeks in advance of the final exam time for an allowance to be made. Also you must inform the instructor at least a week in advance if you have a conflict with a scheduled midterm date, or any other important date as the semester progresses.

Assignments that are due in class will be due at the beginning of lecture on the date specified in the assignment. Assignments due electronically will have their due times listed in the assignment. Projects may be submitted up to three days late, with a 15–point late penalty for each day late. If multiple submissions are made for a project assignment the latest one is the only one that will be graded and the late penalty associated with it will be applied, regardless of what other submissions have been made.

8 Course topics

The following list of topics may vary according to the pace of lecture, so their order is approximate.

- Hardware/software/operating systems/networks: Introduction and terminology. Discussion of the distinct layers of technology within today’s personal computer, definition and explanation of how digital technologies store and manipulate data, discussion of key terms in their proper contexts.
- Introduction to the Internet and the World Wide Web. History of the Internet starting from its origins as the ARPANET, moving into the early 1990s when a major transition away from mostly governmental and academic use took place. Discussion of the history and challenges of multiple browsers, the need for common document formats. Discussion of online community.
• Discussion of the way in which Internet addresses and protocols work, details relating these issues to home networks, and some of the security issues posed by today’s home user and web designer’s needs.

• Messaging systems. Different messaging systems (mostly text–based systems) will be discussed and presented within the context of the development of messaging over the past three decades (e.g., talk vs. ICQ vs. AIM). Using messaging systems in order to exchange files and communicate via voice and video. Some of the security risks of unencrypted messaging and how they related to the Internet’s basic architecture.

• How to connect to remote resources other than via a web browser (such as through telnet and secure shell). The web browser is just one of many clients available, and it is not a good idea to restrict yourself to it as your only interface to Internet resources.

• The UNIX operating system. Learn about the UNIX family of operating systems in order to know how to log into a remote UNIX workstation, navigate its file system, and create documents. Machines running UNIX–family operating systems will be used to explore email and text messaging, as well as web design.

• Email. The history of email dating back to the early 1970s moving through the current state of the technology. Discussion of how the underlying protocols have changed little in three decades, and the implication of this on our current use of email. Practical experience with different generations of email clients.

• Exploration of different ways to transfer files across the Internet, and related security and legal issues. Discussion of peer–based technologies in general, and peer–based file sharing system in particular. Demonstrations of software using different file transfer architectures.

• Exploration of online book–centric resources. This will include library resources, but also include discussions of how to make use of online bookstores and search collections.

• Searching for information on the World Wide Web. An exploration of different web–based search tools, as well as issues in credibility and reliability of sources on the Internet.

• Web page authoring “from scratch” using a text editor to build web pages. Creating and connecting web pages using technologies including HTML, SSI, style sheets, and Java applets.

• Image creation and editing.

• Spreadsheets. The historic significance of the spreadsheet as well as their use to process and present data. Some basic concepts in statistical functions and chart generation, as well as their potential misuse. Comparison of some different spreadsheet applications (such as Office’s Excel, UNIX’s sc, Open Office’s Calc). Importing data from other document types into spreadsheets.

• Social and legal issues relating to the Internet and information technology, tying topics across the entire semester to current events, with a focus on privacy, security, and ethics.

9 Absences and accommodations

Besides the policies in this syllabus, various University policies may apply to students during the semester. Policies that may be relevant appear in the Undergraduate Catalog, at www.umd.edu/catalog.

If you experience difficulty during the semester keeping up with the academic demands of your courses, you may consider contacting the Learning Assistance Service in 2201 Shoemaker Building at (301) 314–7693. Their educational counselors can help with time management issues, reading, note–taking, and exam preparation skills.

9.1 Excused absences

Any student who needs to be excused for an absence from a single lecture or discussion section for reasons of medical necessity must:

• Make a reasonable attempt to inform the instructor of his or her illness prior to the class.

• Upon returning to the class, present their instructor with a self–signed note attesting to the date of their illness. Each note must contain an acknowledgment by the student that the information provided is true and correct. Providing false information to University officials is prohibited under Part 9(h) of the Code of Student Conduct (V–1.00(B) University of Maryland Code of Student Conduct) and may result in disciplinary action.

• This self–documentation may not be used for the major scheduled grading events as defined below and it may only be used only once during the semester.

If a student needs to be excused for a prolonged illness (for this course this means missing three or more days) or if a major scheduled grading event is missed due to illness, the student must provide written documentation of the illness from the Health Center or from an outside health care provider. This documentation must include the contact information of the provider, verify dates of treatment, and indicate the time that the student was unable to meet academic responsibilities. Diagnostic information need not be given. The dates of the illness must include the missed
grading event. The major scheduled grading events for this course are the two midterms and the final exam whose dates are given above in Section 7, the papers, and the projects. A student unable to take an exam due to illness must inform the instructor within 24 hours, using the contact information on this syllabus.

Note that self-documentation does not suffice for the major scheduled grading events.

An excused absence will be given for other University–approved reasons (meaning reasons other than illness, such as religious observance, participation in required university activities, or family or personal emergency) provided that:

- Students requesting an excused absence furnish documentary support of the cause of the absence where feasible.
- The maximum possible advance notice is given.

9.2 How excused absences are handled

An excused absence for an exam will be handled by giving a makeup exam at a time to be arranged. The makeup must be taken as close to the original exam date as feasible, taking into account the reason for the absence.

With an excused absence a project or paper can be submitted at the next class a student attends after the reason for the absence is over (for example, after recovering from an illness) without penalty for lateness.

University policy allows for one clicker polling day to be excused for medical reasons with simple self-documentation. Excused absences for in–class discussions will be arranged individually.

9.3 Students with disabilities

Any student eligible for and requesting reasonable academic accommodations due to a disability is requested to provide, to the instructor in office hours, a letter of accommodation from the Office of Disability Support Services (DSS) within the first two weeks of the semester.

All arrangements for exam accommodations as a result of disability must be made and arranged with the instructor at least three business days prior to the exam date, or accommodations cannot be made.

10 Academic integrity statement

Please carefully read the Office of Information Technology’s policy regarding acceptable use of computer accounts and resources at www.nethics.umd.edu/aup.

The Campus Senate has adopted a policy asking students to include the following statement on each major assignment in every course: “I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment).” Consequently you will be requested to include it on major coursework in this course.

Unless otherwise noted on the assignment, papers and projects are to be written individually, so cooperation or use of unauthorized materials on projects is a violation of the University’s Code of Academic Integrity. Any evidence of impermissible cooperation or of use of unauthorized materials, or cooperation on exams or quizzes, or other possible violations of the Honor Code, will be submitted to the Student Honor Council, which could result in an XF for the course, suspension, or expulsion.

In learning the course concepts students are welcome to study together or to receive help from others. Students may discuss with others the requirements of a paper or project (meaning what it’s asking for), but when it comes to actually designing or writing a paper or project, unless noted otherwise on the assignment these must solely and entirely be a student’s own work, other than any assistance from the instructional staff.

If you have any question about a particular situation or source consult with the instructor in advance.

It is the responsibility, under the honor policy, of anyone who suspects an incident of academic dishonesty has occurred to report it to the instructor, or directly to the Honor Council.

11 Right to change information

Although every effort has been made to be complete and accurate, situations that arise during the semester could require the adjustment of any material given here. Consequently, given due notice to students, the instructor reserves the right to change any information or policies in this syllabus or in other course materials.

12 Copyright

All course materials are copyright Evan Golub and Larry Herman © 2012. All rights reserved. Students are permitted to use course materials for their own personal use only. Course materials may not be distributed publicly or provided to others (excepting other students in the course) in any manner or format.