

Guttman Community College
50 West 40th Street, New York, NY 10018

INFT 221: Web Technologies and Multimedia

Spring I 2023

(updated on 5/27/2023)

Course Number: INFT 221

Class Location: Room 007

Class Hours: Th 9:45am-12:45pm

Course Site: BlackBoard/Teams/Github

Instructor: Dr. Jinzhong Niu

Office Hours: T 7-8pm @ Teams*

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* By appointment via Starfish only.

1 Catalog Description

This course will focus on the skills needed to construct attractive and efficient web pages and web sites using Hypertext Markup language (HTML) or commercial web-authoring software. Topics include Web Design Guidelines, e-commerce, promotion strategies, HTML, XHTML, Cascade Style Sheets (CSS), Java Applets, and JavaScript. Students will learn the elements of page design and maintenance, how to create special effects, work with graphics, create links, and add user interactivity.

2 Course Overview

In this course, we start with an introduction to the web infrastructure, including technologies and software that are typically used on the front-end (or the client side) and on the back-end (or the server side) respectively. We then cover several major topics in detail: HTML for creating web page structure and content, CSS for stylizing web pages, and popular library and frameworks like Bootstrap to implement standardized themes and layouts. Students will complete a signature project, building an actual web site. We will use multiple software tools/platforms for development, including inVision Board, an online tool for collecting and organizing materials to be used for the website; Balsamiq, a popular wireframing tool for the design; NetBeans, the popular integrated development environment tool for the implementation; and Surge.sh, a leading service provider for hosting static web sites.

In addition, there will be a Collaborative Online International Learning (COIL) component in this particular offering. We will collaborate with another class on web development from Palestine Ahliya University (PAU). Students from both classes will form joint groups to investigate gender-related inequalities in the two countries and feature the research results on the web site each group builds. This collaboration is part of a joint effort under the name of **Global Scholars Achieving Career Success (GSACS)** between five CUNY colleges and four universities in Middle East and North Africa (MENA) to promote global learning and career success.

Prerequisites

INFT 211: Programming I.

Credits/Contact Hours

3 credits, 3 hours.

3 Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Understand how WWW works through web browsers and web servers.
2. Create web pages using HTML elements.
3. Apply styles to web pages using CSS rules.
4. Use industry-standard libraries and tools in web development.
5. Understand how the classic three-tier Linux-Apache-MySQL-PHP (LAMP) stack or a similar architecture works.
6. Understand several major steps in building a website, including analysis, design, implementation, and testing.

and through the COIL module in particular

7. Expand knowledge of language, cultures, traditions, and communication habits in Palestine.
8. Shift perspectives and behaviors into an alternative cultural worldview.
9. Use technology to present ideas and communicate across cultures.
10. Communicate and collaborate effectively on tasks with international peers.
11. Critically analyze social, political, and historical factors that contribute to employment inequalities in Palestine and New York City.
12. Examine how women are impacted by job opportunities and availability in Palestine and New York City through interviews and/or questionnaires.

4 Texts and Materials

This course is an Open Education Resources (OER) course, meaning that there is no textbook you have to pay for. Instead, we use carefully chosen and tailored online resources. We have found the following online tutorials useful in previous offerings and will provide a separate document listing all the topics that will be covered. That document will serve as the textbook. But feel free to use whatever materials you find helpful yourself.

- HTML 5 Tutorial from W3Schools
<http://www.w3schools.com/html/default.asp>
- CSS 3 Tutorial from W3Schools
<http://www.w3schools.com/css/default.asp>
- Bootstrap Tutorial from W3Schools
<http://www.w3schools.com/bootstrap/default.asp>
- Bootstrap Tutorial from TutorialRepublic
<http://www.tutorialrepublic.com/twitter-bootstrap-tutorial/>
- Learn to Code HTML & CSS
<https://learn.shayhowe.com/html-css/>

Any additional materials that are needed for this course will be posted on the course web site in due course.

5 Learning Platforms and Tools

We use multiple platforms and tools to support teaching and learning with Blackboard being the main portal (a gateway indeed for you to navigate to the actual course website).

- **Official course web site**

<https://tinyurl.com/guttman-2023s1-inft221>

This web site, hosted on Github and linked on our Blackboard course page, provides most of the information and resources for the course:

- syllabus
- course plan (topics we cover and work you need to do)
- additional learning materials (handouts, video lessons, online tutorials, etc.)
- assignments (requirements and submission info)
- resources (references, software tools, etc.)

As we need to visit this site very often, you may bookmark this web site in your browser for quick and easy access. Different from Blackboard, visiting this site does not require any credential to log in.

- **Microsoft Teams**

We use Teams to support the following:

- class announcements and notifications
- individual office hour meetings
- assignment announcement and submission
- scores of submitted work

Microsoft Teams is available on all platforms. You can download it from the link below:

<https://products.office.com/en-us/microsoft-teams/download-app>

When you log into Teams, make sure to use your **CUNY login credential (ending with @login.cuny.edu)** as username. **DO NOT use your Guttman email.** Once you log in, join the team created for this course using the code below:

x6bdeer

- **Blackboard**

We use Blackboard to support certain activities that are not covered by the tools or platforms above:

- gradebook (both scores of individual pieces of submitted work and a cumulative grade)
Individual scores will be copied from Microsoft Teams towards the end of the semester.

For your convenience, the official course web site is linked both in Blackboard (“*External Course Website*” in the navigation menu of the course page) and in Microsoft Teams (“*External Course Website*” tab when you click the team for this course in Teams).¹

- **InVision Boards**

InVision Boards is a visual tool to organize assets for web design, which usually include a collage of images, color palettes, typography, patterns, textures, and other design elements that evoke the desired mood and emotion. So the boards created using this tool are also called mood boards. They are typically created at the beginning of a project to help stakeholders understand the design direction, style, and overall mood the project aims to achieve. InVision Boards also support easy collaboration and sharing, making it ideal for you to work with your team.

- **Balsamiq**

Balsamiq is a rapid wireframing software tool used for creating user interfaces and web applications. It allows users to quickly sketch out ideas and concepts in a collab-

¹The tab may be hidden in the dropdown menu on the right end of the tab bar.

orative and iterative manner, helping teams to visualize and refine their designs before investing significant time and resources in development.

The tool also has features for sharing and collaboration, including the ability to export designs to PDF or PNG formats, as well as integrations with popular project management and design tools like Slack.

- **NetBeans**

NetBeans is a popular integrated development environment (IDE) used for creating applications in various programming languages, especially for Java applications and for web development. It will be the tool that we use throughout the course in creating web pages.

<https://netbeans.apache.org/>

- **Surge.sh**

Surge.sh is a static web publishing platform that allows developers to deploy and host their static websites, web applications, and other digital content easily and quickly. Surge.sh offers a simple command-line interface that allows developers to publish their content with just a few commands.

You will use Surge.sh to host the website you build for the signature project.

- **Perusall**

We will also be using a website called Perusall (<http://www.perusall.com/>) for you to work on in-class exercises and review your submitted work. If you do not have an account with Perusall yet, go ahead to create one using your favorite email address and your actual name, and then use the course code below to enroll in this course on Perusall:

NIU-FNLQL

- **Slack**

Slack is a cloud-based communication and collaboration platform designed to help teams work more efficiently and effectively. It allows team members to communicate with each other in real-time through chat messages, voice calls, and video conferences. Slack also provides a range of features such as file sharing, integrations with other tools and apps, and the ability to create channels for specific projects or topics.

We'll be using Slack for you to communicate and collaborate with your group members on the signature project. You can join with the link below using your favorite email address (Guttman email address preferred):

<https://tinyurl.com/guttman-2023s1-inft221-slack>

There will be multiple GSACS channels on Slack. Some of them are public channels including everyone from the two collaborative classes used for announcements and

discussions. Some others would be private channels with each used by one group of students. You will be added to those private channels once groups are formed.

Certain GSACS-related assignments may need to be submitted on Slack rather than Microsoft Teams to be shared with the two classes.

- **Zoom**

Although we don't use it often for this course, we'll be using it for synchronous online sessions meeting with our partner class from PAU.

6 Projects, Assignments, and Exams

Signature Project

Students are required to complete a signature project — building a website featuring gender-related inequalities, especially those in New York City (or the US at large) and in Palestine. The project will be split into multiple small pieces or steps. As the semester proceeds and topics are gradually covered, students will complete these different pieces and present the entire project towards the end of the semester.

Students from Guttman and PAU will form multiple joint groups. Each group will work together to conduct research and build a website. Every group will present their work around mid May via either a live, virtual presentation or a recorded video presentation to an international audience from CUNY and universities in MENA.

More details on each step of the project will be made available in due course.

Assignments

Assignments will be given throughout the semester. Some of them will be done in class while others will require more effort and be due on later specified dates. Unless otherwise announced, all assignments and project work should be submitted via Microsoft Teams.

Naming Scheme for Submitted Work

Documents submitted for each assignment should follow the naming scheme below:

`<FN>.<LN>--<CN>--<AN>--<TEXT>.<SUFFIX>`

where <FN> and <LN> are your first name and last name respectively, <CN> is the course number, <AN> is the assignment number, <TEXT> is optional and could be any text you want to add to identify the assignment, and <SUFFIX> is the suffix of the document to be submitted. For example, you may have

`Jane.Doe-INFT102-Assignment2-Decimal.to.binary.docx.`

For assigned work other than assignments, such as projects, your submitted documents should also follow a similar scheme. For example, you may use the following name for a particular part of your signature project:

Jane.Doe-INFT221-Proj-Part3-design.docx.

Documents that do not follow this naming scheme will not be accepted or graded.

7 Grading

Assignments	44%
11 assignments, 4% each	
Project	46%
Step 1: Collection of materials	6%
Step 2: Design	6%
Step 3: Initial implementation with HTML	6%
Step 4: Stylized implementation with CSS	8%
Step 5: GSACS Presentation	8%
Step 6: <i>Stylized implementation with Bootstrap</i>	12%
Attendance and Participation	10%
Total	100%
<i>Optional assessment for extra credit</i>	<i>15%</i>

Each submission of a piece of assigned work will receive up to 10 points unless otherwise stated. The weighted sum of all these points based on the grading scheme above will be your final numeric grade in the scale of 0 to 100, which will then be converted to a letter grade.

At any time during the semester, you can check the points you have received for your submitted work in Microsoft Teams. The scores will be copied to the Gradebook in Blackboard towards the end of the semester and a cumulative numeric grade will be calculated there as a good indicator of your academic performance. You are encouraged to check your grades often, talk to the instructor if you have any concern or need help, and make adjustments for improvements if needed.

Attendance and class participation are extremely important. Students who do not attend class on time regularly or do not participate in class discussion and activities actively should not expect to receive A.

Pop quizzes may be given at the beginning of each class. You are always expected to come to class prepared. If you come late and miss a pop quiz, no make-up will be provided.

Collaboration and group work

Due to the high-profile nature of the signature project, every student is expected to proactively participate in and contribute to group work. 20% of the score for each step of the project will

be based on participation and collaboration.

Late work

Late submission, unless an extension is granted in advance, will not be accepted or graded. If you receive an extension, you should notify the instructor after you submit your work and your grade will then be updated accordingly.

Future changes

Note that the grading scheme above may be adjusted at the discretion of the instructor if the course is not carried out as planned. For example, a planned project may be replaced by an exam if the remaining time in the semester is insufficient to complete the project; or the project could be canceled and its weight is distributed among other components. When such adjustments are needed, students will have a chance to discuss in class and will be informed of the final arrangement.

8 Academic Support

Starfish

Starfish is a communication tool for students, faculty, advisors, and many academic support and student service areas at Guttman. Instructors and advisors will use Starfish to provide you with feedback about your progress. Throughout the semester, you may receive emails or text messages regarding your academic performance and referrals to specific campus resources, such as peer mentors or tutors. You can use Starfish to “Raise Your Hand” and ask questions, and make appointments with your advisor or with other service areas. To access Starfish log into <https://my.guttman.cuny.edu/> and click the **Starfish** icon on the left side of the page. If you need help using Starfish, you can speak to your advisor.

The Information Commons/Library

The Information Commons (IC) is a place to learn, share, and collaborate on academic work. At the IC, you can find copies of textbooks and other course materials for checkout (called “reserves”), and the technology you need to complete your coursework. The IC is also a virtual space, providing you with access to e-books and online article databases so that you can research 24/7. To learn more, visit: <https://library.guttman.cuny.edu/library/>. If you would like to schedule an appointment with the librarians for one-on-one research assistance, send an email to library@guttman.cuny.edu.

Meet-Ups and Tutoring

Guttman provides academic support via Meet-Up Peer Mentors or general tutoring from a variety of campus organizations and initiatives.

As of now, we do not know any detail about tutoring services for this semester. We will share the information once available.

9 College-wide Policies

Policy on Academic Honesty

Guttman Community College considers intellectual honesty to be the cornerstone of all academic and scholarly work. GCC views any form of academic dishonesty as a serious matter and requires all instructors to report every case of academic dishonesty to its Academic Integrity Officer, who keeps records of all cases. All work submitted or posted by students in this course must be their own. Submission of writing or ideas which are not the original work of the student, or which is not adequately referenced, is considered plagiarism. Unintentional plagiarism is still plagiarism, so if you have any question about whether or not to acknowledge a source, acknowledge it. And if you are still uncertain, be sure to ask. Refer to Article II of your Student Grievance Procedures for further details on academic honesty and Guttman's academic integrity procedures, at <https://guttman.cuny.edu/students/policies/>. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension or expulsion.

Disability Support Services

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Guttman Community College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/or Learning) consult the Office of AccessABILITY Services located in Room 506 to secure necessary academic accommodations. For further information and assistance please call 646-313-8061 or speak to your Student Success Advocate or Career Strategist.

Critical Incident Management

Guttman expects students to respect the rights, privileges and property of other people. Faculty are required to report disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment or inhibits students' ability to learn.

Viewpoint Tolerance

Some of the issues covered during the seminar may evoke strong emotions. Students, faculty and staff must be able to disagree respectfully with others on topics that are personally very important to them. **Civility is essential to all scholarly discourse.**

Expectations for Out-of-Class Time

For every one instructional credit hour in class, a Guttman student is expected to spend at least two hours out-of-class studying, reading, writing, researching and working on projects, and preparing for tests. E.g. for a 3 credit course that meets for 3 hours each week, a student is expected to spend at least 6 hours outside of class time doing related course work. If a course provides more time in class than one hour for one credit, the additional time may offset out-of-class time expectations.

10 Expectations for Participation and Engagement

Attendance

Your punctual attendance to class is mandatory for your success in this course. You must prepare for and attend every class, on time. Attendance will be taken at the beginning of the period. **If you arrive after attendance is called, it will be your responsibility to check in at the end of the period. Two occasions of lateness will equal an absence and will therefore affect your grade. After two absences, each additional absence lowers your grade by half a grade.**

When you come to class late, it can disrupt the flow of a lecture or discussion, distract other students, impede learning, and generally erode class morale. There are a number of possible reasons you arrive to class late. However understanding the reasons does not require tolerating the behavior. **If you repeatedly come to class late, especially if you arrive more than 15 minutes late, the instructor may refuse you to enter the classroom, and this will be counted as an absence.**

Communication and Netiquette

In addition to announcements and discussions in class, we rely on email and Microsoft Teams as the main channels online to communicate asynchronously.

My emails will be sent to your Guttman email address. *Please make sure that you check your Guttman email frequently.*

When you communicate with the instructor or your classmates, make sure that you follow common netiquette rules. Below are some of them:

- Treat one another with respect. It will be expected that we will not attack one another personally for holding different opinions.
- Do not use all CAPITAL LETTERS in emails or other online postings. This is considered “shouting” and is seen as impolite or aggressive.
- Begin emails with a proper salutation (Examples: Dr. Name; Ms. Name; Hello Professor Name; Good afternoon Mr. Name). Starting an email without a salutation or a simple “Hey” is not appropriate.

- When sending an email, please include a detailed subject line. Additionally, make sure you reference the course number (Ex. INFT 211) in the message and sign the mail with your name.
- Use proper grammar, spelling, punctuation, and capitalization. Text messaging language is not acceptable.
- Re-Read, think, and edit your message before you click “Send/Submit/Post.”

Mutual Respect

People come to this class with different kinds of academic expertise, different life experiences, and different customs (both individual and cultural). These differences can, and hopefully will, contribute positively to the substance and quality of class discussion. However, because these differences are often related to social inequalities, they can also be a source of misunderstanding and frustration. It is thus important to keep in mind that active, respectful class participation is as much about listening to and engaging the ideas of others as it is about speaking one’s own mind.

Group Work

As it is in most jobs, working with others is an integral part of our model here at Guttman Community College. We understand that this can be uncomfortable for some of you and our goal is to alleviate that as much as possible while helping you to make the most of it. Remember from Summer Bridge that you each have different strengths and you should use those to allow the group to advance. If you have completed and understand a task, you should look to help your group members find the same confidence with it. Similarly, if there is something you are having trouble with, turn to your group members, and other classmates, if appropriate, before you turn to me. Remember we all have knowledge and the classroom is only made better when we share it. We expect every student to participate in any group assignments and, as a member of a group; it is your responsibility to be involved and to make sure the other members of your group are also involved.

Electronic Devices

Cell phones, tablets, audio players, laptops, and desktop computers if any in the classroom will be used for instructional purposes **ONLY**. **Please turn off (or switch to airplane mode) and put away electronic devices unless otherwise requested by the instructor. The instructor reserves the right to request students who do not follow the rule to leave their electronic devices at a designated place in the classroom until the end of the class.** Any use of digital devices for non-instructional purposes, excessive disruption in class, or lack of engagement in class will result in your being marked absent for the day. Repeated violation of this rule will lead to further disciplinary actions.

Food and Drinks

A drink and/or small snack will be permitted in class, but please no meals. Please plan accordingly.








11 Weekly Calendar (tentative)

 reading  activities  assignments

css: 60 for background, 30 for highlighted background, 10 for decoration

MONDAY	THURSDAY
<p>3/6</p>	<p>3/9 1 2</p> <p>Syllabus and introduction; Project introduction</p> <p> Groups for signature project; Installation and setup of tools (Teams, Slack, and NetBeans)</p> <hr/> <p>HTML: Overview</p> <p> The first HTML project</p> <p> <i>Assignment 1: Introduction video;</i> <i>Assignment 2: Learning about Palestine</i></p>
<p>3/13</p> <div style="border: 1px solid blue; padding: 2px; width: fit-content;">Last Day to Drop w/o “WD”</div>	<p>3/16 3 4</p> <p>How WWW works; HTML: Basic structure and elements (heading, list, paragraph, hyperlink, image)</p> <p> DFTI video tutorials 1-4</p> <p> <i>Assignment 3: Online resume</i></p> <hr/> <p>HTML: Inline vs. block elements</p> <p> Creating HTML content of CSS Zen Garden web page</p>
<p>3/20</p>	<p>3/23 5 6</p> <div style="border: 1px solid blue; padding: 2px; width: fit-content;">VoE due</div> <div style="border: 1px solid blue; padding: 2px; width: fit-content; margin-top: 5px;">Last Day to Drop w/o “W”</div> <p>HTML: Basic structure and elements (space, line break, symbols)</p> <p> NetBeans configuration and tricks</p> <hr/> <p>HTML: Semantic elements</p> <p> Creating online resume with proper logical structure; Installation and setup of tools (Invision Boards and Balsamiq)</p> <p> <i>Project - Step 1: Material collection</i></p>

MONDAY	THURSDAY
3/27	3/30 7 8 CSS: Three ways to use and common selectors <i>✎ Project - Step 2: Design</i> <hr/> CSS: Properties for color, text, and font <i>✎ Assignments 4 and 5</i>
4/3	4/6 Spring Break (4/5-4/13)
4/10 Spring Break (4/5-4/13)	4/13 Spring Break (4/5-4/13)
4/17	4/20 9 10 CSS: Box model, position, and layout <i>✎ Project - Step 3: Initial implementation with HTML</i> <i>Assignments 6 and 7</i> <hr/> CSS: Flexbox
4/24 Community Day - No Class	4/27 11 12 CSS: Using color with 60-30-10 rule <i>👤 Implementing header using Flexbox</i> <i>✎ Assignment 8</i> <hr/> CSS: Font Awesome <i>👤 Adding social network icons;</i> <i>Hosting a website on Surge.sh</i> <i>✎ Project - Step 4: Stylized implementation with CSS</i>
5/1	5/4 13 14 CSS: Using Google fonts <i>✎ Project - Step 5: Presentation</i> <hr/> Workshop on project: Step 4 (stylized implementation) and Step 5 (video presentation)

MONDAY	THURSDAY
<p>5/8</p> <p>GSACS presentation recording due</p>	<p>5/11 15 16</p> <p>Discussion on GSACS experience</p> <hr/> <p>Responsive website; CSS: Media query  Exercise: creating responsive web pages  <i>Assignment 9</i></p>
<p>5/15</p> <p>GSACS conference/presentation</p>	<p>5/18 17 18</p> <p>Responsive web content based on Assignment 9  <i>Assignment 11 (in-class)</i></p> <hr/> <p> Review and discussion of peers' work</p>
<p>5/22</p>	<p>5/25 19 20</p> <p>Bootstrap: Introduction and layout  <i>Assignment 10</i></p> <hr/> <p>Bootstrap: Utilities and common components  Bootstrap quiz  <i>Project - Step 6: Stylized implementation with Bootstrap</i></p>
<p>5/29</p> <p>No Class</p>	<p>6/1 21 22</p> <p>Assessment for extra credit</p> <hr/> <p>Workshop</p>
<p>6/5</p>	<p>6/8 23 24</p> <p>Last 2 Days to Drop with "W"</p> <p>In-person submission of Project - Step 6</p> <hr/>
<p>6/12</p> <p>Last Day of School</p>	<p>6/15</p> <p>Culminating Days (6/13-6/15)</p>