Tentative Syllabus
CSCE 572 - 001: Human-Computer Interaction
(Fall 2020)

Course Instructor: Dr. Yan Tong
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777-0801 (office)
Virtual Office Hours: by appointment

Class Homepage: http://www.cse.sc.edu/~tongy/csce572/csce572.html

Academic Bulletin Description:
Interdisciplinary approach to interaction design, user-centered design, human abilities, survey development, experimental study methodology, heuristic evaluations, usability testing, universal design, and accessibility.

Full Course Description:
*Human-Computer Interaction* is a course that focuses on the importance of human-computer interaction in the design and development of things people use. Topics covered in this course will include the capabilities and limitations of users, HCI methods, the design process, and design evaluation.

**Keywords:** Interaction design and evaluation, interaction modes, system usability, human-robot interaction, cooperative systems, universal design, and accessibility.

Pre-requisites:
Undergraduate or graduate standing in CSE or permission of the instructor.

Goals and Learning Outcomes:
The overall goal of this course is to provide students with knowledge and skills necessary to critically evaluate system design from a human-centered approach. The measurable learning outcomes used to determine the degree to which this goal is being met follow:

- Students will describe the design process
- Students will apply evaluation tools, techniques, and ideas to interface design
- Students will critically analyze human-computer interaction systems

All learning outcomes in this course are equivalent to the face-to-face (F2F) version of this course.

Course Textbooks and Readings:
- *Selected course handouts* –will be provided when applicable

All course materials comply with copyright/fair use policies.

Course Overview:
This course is designed to provide students with a variety of contexts for understanding, evaluating, and implementing human-computer interaction methods and processes.
This course adopts a 100% online mixed asynchronous & synchronous instructional method and there are no face-to-face class meetings. Asynchronous activities and synchronous activities are designed to build on each other. Active participation in these activities and completion of all coursework is required in this course.

- **Student-to-Instructor (S2I) Interaction**: Students will listen/view lectures online via videos and interact with the professor through email, MS Teams or Blackboard Collaborate Ultra, and (possibly) discussion boards. The professor will post announcements, provide individual feedback to students, and hold online office hours via MS Teams and online group meetings via Blackboard Collaborate Ultra.
- **Students-to-Student (S2S) Interaction**: Students will engage in discussions through email, the discussion board, and MS Teams or Blackboard Collaborate Ultra.
- **Student-to-Content (S2C) Interaction**: Students will engage with course content by completing assignments, quizzes, exams, team project presentations, and other team project deliverables and participating in discussion boards and online group discussions.

A tentative course schedule can be found at the end of the syllabus. All course deadlines are listed in Eastern Time Zone.

**Course Communication**:
I will be communicating with you regarding grades and assignments. If you need to get in touch with me, the best method is via email (tongy@cse.sc.edu). Generally, I will reply to emails within 24 hours and will provide feedback on assignments within 72 hours. You may also post questions pertaining to the course on the Blackboard Discussion Board. These questions will be answered within 24 hours. If you are having trouble with this course or its material, you should contact me via email to discuss the issues.

Announcements will be posted to this course whenever necessary. If there is any other information I think is important, I will send it to your email address you have in Blackboard. It is your responsibility to ensure that your email account works properly in order to receive email.

Below is how you check your email address in Blackboard:
- Access blackboard.sc.edu
- Click your name on the main Blackboard navigation panel on the left
- Review your email address. By default, Blackboard uses your university-issued email address

Your email address in Blackboard coincides with your preferred university email. If you are unsure of your preferred email, check your account (https://myaccount.sc.edu). For more information on setting your preferred university email, please see the [How To Change Your Primary University Email Address](https://scprod.service-now.com/sp?id=kb_article_view&sysparm_article=KB0011464) Knowledge Base article.

**Technology Requirements**:
Online lectures will be provided through Adobe Connect Professional. Therefore, you must have access to the Internet to view/hear lectures. No special software is required.

The PowerPoint lecture presentations, links to articles, assignments, quizzes, and rubrics are located on the Blackboard site for the course. To participate in learning activities and complete assignments, you will need:
- Access to a working computer that has a current operating system with updates installed, plus speakers or headphones to hear lecture presentations;
- Reliable Internet access and a UofSC email account;
- A current Internet browser that is compatible with Blackboard (Google Chrome is the recommended browser for Blackboard);
- Microsoft Word as your word processing program;
- Microsoft Teams for virtual office hours and
- Reliable data storage for your work, such as a USB drive or Office365 OneDrive cloud storage.
If your computer does not have Microsoft Word, Office 365 ProPlus package is available to you free of charge and allows you to install Word, Excel, PowerPoint, Outlook, OneNote, Publisher, and Access on up to 5 PCs or Macs and Office apps on other mobile devices including tablets. Office 365 also includes unlimited cloud storage on OneDrive. To download Office 365 ProPlus, log into your student (University) email through a web browser, choose Settings (top right corner), and select software. If you have further questions or need help with the software, please contact the Service Desk (https://www.sc.edu/about/offices_and_divisions/university_technology_services/support/servicedesk.php).

**Minimal Technical Skills Needed:**
Minimal technical skills are needed in this course. All work in this course must be completed and submitted online through Blackboard. Therefore, you must have consistent and reliable access to a computer and the Internet. The minimal technical skills you have include the ability to:
- Organize and save electronic files;
- Use UofSC email and attached files;
- Check email and Blackboard daily;
- Download and upload documents;
- Locate information with a browser; and
- Use Blackboard.

**Grading System:**
All grades will be posted on Blackboard. You are strongly encouraged to check your scores in Blackboard regularly. A final letter grade will be assigned based on:
A (90-100%), B+ (86-89%), B (80-85%), C+ (76-79%), C (70-75%), D+ (66-69%), D (60-65%), and F (0-59%)

**Grading policy (Undergraduate students):**
- Two exams (20% each)
- Individual assignments (3) (10% in total)
- Team project (45% in total):
  - Topic definition and understanding of the problem report (5%),
  - Design alternative presentation (5%),
  - Final project presentation (10%),
  - Final written report (15%), and
  - Participation grade (10%)
- Quizzes (5) (5% in total)

**Grading policy (Graduate students):**
- Two exams (15% each)
- Individual assignments (3) (10% in total)
- Paper reading and written report (10%)
- Team project (45% in total):
  - Topic definition and understanding of the problem report (5%),
  - Design alternative presentation (5%),
  - Final project presentation (10%),
  - Final written report (15%), and
  - Participation grade (10%)
- Quizzes (5) (5% in total)

**Additional requirements in the assignments, project, and/or exams to get graduate credits**

**Course Assignments:**
All course deadlines are listed in Eastern Time Zone.
**Team project:** A big part of human-computer interaction is applying knowledge about human capabilities and limitations, and thus documenting and reducing design problems is a large part of the field. Consistent with this, a semester-long, team-based interface design project will be given in this course. The project will have your team develop an alternative interface for some computer-based application. The project will be broken down into consecutive design phases:

- Topic definition and understanding the problem,
- Design alternatives presentation,
- System prototype development,
- Usability techniques,
- Final presentation, and
- Final written paper.

You will be judged on your originality, innovativeness, and quality. Further details on the project will be communicated often throughout the course.

Certain class periods will be used for your project. You will conduct some kind of activity individually or with your team. Absence from the teamwork not only negatively impacts your team project ultimately, but also peer-assessments from your team members about your contributions to the project, which will affect your participation grade.

The team project will consist of several deliverables during the semester, with **the end products** being

- A final team presentation and
- A final team-written report.

Details and rubrics on these final products will be communicated throughout the course.

Individual assignments include

- An essay about yourself.
- Completion of a required IRB training: You are required to successfully complete an IRB training for better understand ethical guidelines that HCI researchers must follow.
- An individual written critique assignment: This assignment will require you to think critically of the evaluation techniques you learn in class and answer pre-determined questions. Graduate students will complete the same critique but with added content that will require additional analysis.
- Graduate students are required to conduct a literature review on a selected HCI research topic and write a report. (Graduate students ONLY)

These individual assignments should be completed individually (do NOT work in groups)

**Exams:** There will be 2 exams during the semester. The exams will consist of True/False, Single/Multiple Choice and Short Answer questions. The content of the exams will be notified in lecture. Most of the materials you will be tested on comes from class lectures and may or may not be included in the textbook(s). Make-up exams are not allowed except excusable absences (http://bulletin.sc.edu/content.php?catoid=52&navoid=1280#Attendance_Policy) with appropriate documentation and advanced notice. Graduate students will complete additional requirements to get graduate credits. The exams will be secured in Blackboard with a password.

**Quizzes:** There will be 5 quizzes during the semester, which will help you to strengthen your understanding of key concepts learned in class. The quizzes consist of True/False, Single/Multiple Choice or Short Answer questions. The quizzes will be secured in Blackboard with a password.

**Late Submission Policy:**
A due date will accompany all assignments, quizzes, exams, and deliverables of the team project. All course deadlines are listed in Eastern Time Zone.

Please plan accordingly and complete these assignments in advance of their deadlines to ensure any unanticipated circumstances do not result in a missed assignment. User error does not qualify you for any kind of makeup or retake opportunity.
Completing and submitting the assignments, quizzes, exams, and project deliverables by the due date is the sole responsibility of you. You will be allowed to access the assignments an unlimited number of times until the due date/time, and take quizzes one time each on or before the due date/time as indicated on the course calendar. If you are concerned about missing a deadline, you may want to submit your assignments, quizzes, and project deliverables the day before the deadline.

Late submissions of assignments, quiz responses, or project deliverables will be accepted if BOTH of the following requirements are met:

- You must contact me in advance of the required assignment, quiz, and project deliverable deadline to make arrangement for its completion.
- You must complete the assignment, quiz, and project deliverable within the week following its due date.

However, late submissions will be subject to the following penalty: 10% will be deducted from your grade for the first day late, and an additional 5% will be deducted on each subsequent day.

Except group presentations and final written report of the team project, you will be granted for a ONE-TIME waiver of late submission penalty - you will not be penalized if you submit your assignment in three days after due date. For team deliverables, you cannot use the waiver if any member in the team has used the waiver before. Please notify me in advance, when you use this waiver.

Be Careful: The clock on your computer may be different than the clock in Blackboard. If the clock is different by one second, you will be locked out of the assignment or quiz. Plan accordingly. I recommend that you submit your assignments, quizzes, and exams well before deadline.

**Attendance Policy:**
Success in this course is dependent on your active participation throughout the course. You are expected to log into Blackboard several times a week, view lectures and materials, and complete course assignments. Furthermore, you are expected to participate in online group discussions during scheduled synchronous sections. Even if your work is completed, you still need to login to ensure that you have seen all announcements, etc. It is your responsibility to checking updates related to the course.

**Academic Integrity:**
You are expected to practice the highest possible standards of academic integrity. Violations of the University's Honor Code include, but are not limited to improper citation of sources, using another student's work, and any other form of academic misrepresentation. Violations of the University's Honor Code will be reported to the Office of Student Conduct and Academic Integrity. Below are some websites for you to visit to learn more about University policies:

Carolinian Creed (http://www.sc.edu/creed)
Academic Responsibility (http://www.sc.edu/policies/staf625.pdf)
Office of Student Conduct and Academic Integrity (https://www.sc.edu/about/offices_and_divisions/student_conduct_and_academic_integrity/index.php)
Information Security Policy and Standards (https://sc.edu/about/offices_and_divisions/division_of_information_technology/security/policy/universitypolicy/)

**Disability Services:**
Student Disability Resource Center (SDRC) (https://www.sc.edu/about/offices_and_divisions/student_disability_resource_center/) empowers students to manage challenges and limitations imposed by disabilities. Students with disabilities are encouraged to contact me to discuss the logistics of any accommodations needed to fulfill course requirements (within the first week of the semester). In order to receive reasonable accommodations from me, you must be registered with the Student Disability Resource Center (1523 Greene Street, LeConte Room 112A, Columbia, SC 29208, 803-777-6142). Any student with a documented disability should contact the SDRC to make arrangements for appropriate accommodations.
<table>
<thead>
<tr>
<th>Date(s)</th>
<th>Asynchronous Activities</th>
<th>Synchronous Activities (2:20pm – 3:35pm)</th>
<th>Assignments</th>
<th>Due Date</th>
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</thead>
<tbody>
<tr>
<td>Aug. 24 (Monday)</td>
<td>Lecture on introduction to course and syllabus</td>
<td>Meet the class at Blackboard Collaborate Ultra</td>
<td>• Read syllabus &lt;br&gt; • Watch lecture video &lt;br&gt; • Watch CSE Honor Code (Plagiarism) video &lt;br&gt; • An essay about yourself &lt;br&gt; • Define a topic for HCI literature review (Graduate ONLY)</td>
<td>• An essay about yourself (due 11:59pm EST, Friday, Aug. 28, 2020) &lt;br&gt; • Topic and a list of papers (due 11:59pm EST, Friday, Sep. 11, 2020) (Graduate ONLY)</td>
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<td>Aug. 26 (Wednesday)</td>
<td>Lecture on introduction to HCI</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
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<td>Aug. 31 (Monday)</td>
<td>Lecture on design principles</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
<td>Quiz #1 (due 11:59pm EST, Thursday, Sep. 3, 2020)</td>
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<tr>
<td>Sep. 2 (Wednesday)</td>
<td>Lecture on team project and project examples</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video &lt;br&gt; • Quiz #1</td>
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<tr>
<td>Sep. 7 (Monday)</td>
<td>Lecture on project examples and human abilities – auditory</td>
<td>Labor Day No synchronous activities</td>
<td>• Watch lecture video &lt;br&gt; • Brainstorm on project topic &lt;br&gt; • Write a report of “Topic definition and understanding of the problem”</td>
<td>“Topic definition and understanding of the problem” report (due 11:59pm EST, Sunday, Sep. 20, 2020)</td>
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<td>Sep. 9 (Wednesday)</td>
<td>Lecture on human abilities – vision</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video &lt;br&gt; • Brainstorm on project topic</td>
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<tr>
<td>Sep. 14 (Monday)</td>
<td>Lecture on human abilities – cognition</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra</td>
<td>• Watch lecture video &lt;br&gt; • Brainstorm on project topic &lt;br&gt; • Work on written report of HCI literature review (Graduate ONLY) &lt;br&gt; • Quiz #2</td>
<td>• Quiz #2 (due 11:59pm EST, Tuesday, Sep. 15, 2020) &lt;br&gt; • A written report of HCI literature review (due 11:59pm EST, Sunday, Nov. 15, 2020) (Graduate ONLY)</td>
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<tr>
<td>Sep. 16 (Wednesday)</td>
<td>Lecture on human abilities – cognition and IRB instructions</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video &lt;br&gt; • Brainstorm on project topic &lt;br&gt; • IRB training</td>
<td>IRB training certificate (due 11:59pm EST, Sunday, Oct. 4, 2020)</td>
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<td>Sep. 21 (Monday)</td>
<td>Lecture on prototyping</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra</td>
<td>• Watch lecture video &lt;br&gt; • Work on team project</td>
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<td>Date</td>
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<td>Sep. 23</td>
<td>Review for Exam #1</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
<td>Quiz #3 (due 11:59pm EST, Thursday, Sep. 24, 2020)</td>
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<td>• Work on team project</td>
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<td>• Quiz #3</td>
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<td>Sep. 28</td>
<td>Exam 1</td>
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<td>PayPal slides for design alternative presentation (due 11:59pm EST, Wednesday, Oct. 7, 2020)</td>
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<td>(Monday)</td>
<td>Due: 11:59 pm EST, Sep. 29 (Tuesday)</td>
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<td>Sep. 30</td>
<td>Group discussion on preparing design alternative presentation at Blackboard Collaborate Ultra</td>
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<td>• Work on design alternative presentation</td>
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<td>(Wednesday)</td>
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<td>• PowerPoint slides</td>
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<td>Oct. 5</td>
<td>Design alternatives presentation – part 1</td>
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<td>Oct. 7</td>
<td>Design alternatives presentation – part 2</td>
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<td>Oct. 12</td>
<td>Lecture on evaluation methods - Survey</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra</td>
<td>• Watch lecture video</td>
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<td>(Monday)</td>
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<td>• Work on team project prototype</td>
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<td>Oct. 14</td>
<td>Lecture on evaluation methods – Task Analysis</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
<td>Quiz #4 (due 11:59pm EST, Tuesday, Oct. 20, 2020)</td>
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<td>• Work on team project prototype</td>
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<td>Oct. 19</td>
<td>Lecture on evaluation methods – Personas, Cognitive Walkthrough, Card Sorting</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra</td>
<td>• Watch lecture video</td>
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<td>• Work on team project prototype</td>
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<td>Oct. 21</td>
<td>Lecture on evaluation methods – Heuristic Evaluation, Field Study, User Testing</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
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<td>• Written critiques</td>
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<td>• Work on team project prototype</td>
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<td>• Work on evaluation plan</td>
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<td>Oct. 26</td>
<td>Lecture on evaluation methods – Experiments</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra</td>
<td>• Watch lecture video</td>
<td>Quiz #5 (due 11:59pm EST, Tuesday, Oct. 27, 2020)</td>
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<td>• Work on team project prototype</td>
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<td>• Work on evaluation plan</td>
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<td>Oct. 28</td>
<td>Review for Exam 2</td>
<td>Office Hours via MS Teams by appointment</td>
<td>• Watch lecture video</td>
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<td>• Work on team project prototype</td>
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<td>• Work on evaluation plan</td>
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<td>Nov. 2</td>
<td>Exam 2</td>
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<td>Due: 11:59 pm EST, Nov. 3 (Tuesday)</td>
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<td>Nov. 4 (Wednesday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on prototype • Work on evaluation plan</td>
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<td>Nov. 9 (Monday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on prototype</td>
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<tr>
<td>Nov. 11 (Wednesday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on prototype • Work on usability test A report on usability test results (due 11:59pm EST, Monday, Nov. 23, 2020)</td>
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<tr>
<td>Nov. 16 (Monday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on prototype • Work on usability test</td>
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<td>Nov. 18 (Wednesday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on usability test data analysis • Work on refining design</td>
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<tr>
<td>Nov. 23 (Monday)</td>
<td>Dr. Tong meets each group on team project at Blackboard Collaborate Ultra • Work on usability test data analysis • Work on refining design</td>
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<td>Nov. 25 (Wednesday)</td>
<td>Thanksgiving break, no class</td>
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<td>Nov. 30 (Monday)</td>
<td>Lecture on final presentation/report rubrics • Work on final presentation • Work on final written report</td>
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<tr>
<td>Dec. 11 (Friday)</td>
<td>Team final presentation 12:30 pm – 3:00 pm, Friday, Dec.11 at Blackboard Collaborate Ultra • Team final report • Team final presentation slides • Peer evaluation forms Team final report, presentation slides, and peer evaluation forms (ALL due 11:59pm EST, Friday, Dec.11, 2020)</td>
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