LIS 351: Introduction to Digital Information

Spring 2021

Course model	Online asynchronous lecture; online synchronous labs (will be recorded)
Instructor	Dr. Jiepu Jiang, Assistant Professor (jiepu.jiang@wisc.edu)
Teaching Assistants	Xiaofei Wei (xwei52@wisc.edu) Sarah Weiss (sarah.weiss@wisc.edu)
Office Hour	We have office hours every workday; please check Canvas for details.
Preferred ways of communication	Microsoft Teams – post a message in a public channel and @ the instructor/TA or request a private chat. Please check Canvas for a tutorial about MS Teams.

*Please read the syllabus **CAREFULLY**, as some of the questions you might have will be answered by the syllabus*.*

**Special thanks to Ms. Dorothea Salo for providing base materials for this course!*

1 Course Instruction

This course has both lectures and lab sessions. The lectures will be online and **asynchronous** (self-paced; we will NOT need to be online at the same time). We provide online synchronous lab sessions (four lab sections on Mon, Tue, Wed, and Thur each week). The online lab sessions will be recorded. All students can also visit our online office hours for assistance with their homework exercises, lab assignments, and other questions. We host online office hours on Microsoft Teams—so please read through the tutorial of MS Teams on Canvas and make sure you know how to use it.

The lecture videos for each week will typically be posted to canvas on Monday. The homework assignments will typically be due on Sunday unless otherwise noted. The recommended weekly schedule is to finish the readings and lecture videos on Monday, attend lab sections on Mon, Tue, Wed, or Thur, and finish the homework assignments on the rest of the days.

2 Course Description

Students completing this course will earn three credit hours. One credit is the learning that takes place in at least 45 hours of learning activities, which include time in lectures or class meetings, in person or online, labs, exams, presentations, tutorials, reading, writing, studying, preparation for any of these activities, and any other learning activities.

This course has **no** pre- or co-requisites.

This course introduces you to current technologies and policy issues associated with digital information, with an emphasis on information-organization technologies. The course prepares you to handle information-organization and information-access challenges in your field of interest. You will become familiar with current approaches for organizing and describing digital information such that both people and computers can leverage it. You will learn how the Internet shapes access to and use of digital information, and you will use information technology to solve problems and help people.

3 Course Objectives

3.1 Technical

Understand on a basic level what digital information is and how it is circulated over networks

- Design a basic relational database
- Construct simple one-table SELECT queries in SQL
- Be able to build a basic web page with HTML and CSS
- Protect personal security and privacy in online contexts

3.2 Usability and Accessibility of Information

- Understand why website usability is important; be able to perform basic usability tests
- Understand why website accessibility is important; be able to perform basic accessibility tests

3.3 Information Policy

- Apply the basics of United States copyright law, particularly as it relates to digital information
- Navigate common and challenging privacy, information-security, and intellectual-property issues, legally and ethically
- Respond thoughtfully and critically to current policy flashpoints in digital information such as Big Data and online surveillance

3.4 Digital Studies Certificate Knowledge & Skills Learning Goals

- To understand key theories and concepts related to digital studies and the historical context surrounding the creation of digital technologies
- To gain familiarity with methods, concepts, and tools needed to research and evaluate information related to digital studies

- To think critically about how digital technologies work and their impact on society
- To be able to create strategic communication content and self-expression using digital tools
- To understand the professional and ethical principles related to the field of digital studies

4 Textbooks

This course does **NOT** require a textbook. Weekly reading materials will be posted to Canvas.

Additionally, you may use some free online resources for exercises and projects, including (but not limited to):

- W3Schools Online Web Tutorials: https://www.w3schools.com/
- Codecademy: https://www.codecademy.com/

5 Grades and Assignments

I will make every effort to keep assignments due dates the same.

5.1 Grading scale

All final grades will be based on this scale:

Grade	A	AB	B	BC	C	D	F
Points	≥93.5	89.5-93.4	83.5-89.4	79.5-83.4	73.5-79.4	64-73.4	<64

5.2 Assignments

This course relies on **three** different **types** of **assignments** to provide opportunities for students to get hands-on experience, as well as for self-evaluation. The distribution of points for the assignments are as follows:

1) **Participation: 5 points**. Please follow the instruction on canvas and join our course team on MS Teams to get the 5 points (oh, yes, that's it)!
2) **Quiz: 30 points (3 points x 10)**. There will be **14 quizzes** (based on 14 weeks' course content) throughout the semester. Each quiz will count 3 points, but **only the highest scored 10 quizzes will be counted** towards your final grade. Details and due dates will be posted on Canvas.
3) **Exercise: 25 points (5 points x 5)**
   Exercises provide hands-on opportunities based on course content, but it will be less intense than projects (see below). There will be five exercises throughout the semester. Details and due dates will be posted on Canvas.
4) **Lab Project: 40 points (20 points x 2)**
   Lab projects are larger and more intense than exercises. This course requires two projects: hand-coded website and database. You will have 4 weeks for each project, and you will need to submit project milestones each week. More details will be posted on Canvas.

6 Course Policies

6.1 Attendance

This is an online class, so you don't have to come to in-person labs, lectures, office hours, etc. However, you are required to "attend" the class by reviewing course materials and finish required activities on time. You Canvas activities will be checked regularly to make sure this is weekly "class attendance" online.

6.2 Accommodation

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I] will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: McBurney Disability Resource Center)

6.3 Late Submission and Incomplete

The quizzes do NOT accept late submissions.

For exercises and project assignments, if it is a few minutes past the deadline, go ahead and submit with no penalty. Significant late submissions may receive up to 50% penalty of the total points for that assignment depending on how late you submit it. If we have finished the grading and the answers/feedback to the assignment have been posted, then the window for submission has closed.

However, life happens – I realize that all of you are balancing other courses along with work, families, pets, etc., etc., etc., while completing your degree. While I believe that you must "attend" class each week to get the most out of this course, I understand that extenuating circumstances (illness, bereavement, etc.) may interfere with your ability to participate fully in the course. It is your responsibility to contact me as soon as possible if such a circumstance will prevent you from completing the coursework according to the set schedule. I will make exceptions for extenuating circumstances, so please reach out to me if you believe that you cannot meet an assignment deadline.

6.4 Diversity & Inclusion Statement

Https://diversity.wisc.edu/ is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity,

culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

6.5 Academic Integrity

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

6.6 Social Rules

- We will be working with multiple software programs in this course, and everyone will be coming into the course with varying levels of technical skill and experience. To create a more inclusive space for students of all technical skill levels, this course will adopt the Social Rules from the Recurse Center:
  - No feigning surprise
  - No well-actually's
  - No back-seat driving
  - No subtle-isms

You can read more about each rule at https://www.recurse.com/manual#sub-sec-social-rules.

6.7 Students' Rules, Rights & Responsibilities

During the global COVID-10 pandemic, we must prioritize our collective health and safety to keep ourselves, our campus, and our community safe. As a university community, we must work together to prevent the spread of the virus and to promote the collective health and welfare of our campus and surrounding community.

While on campus all employees and students are required to wear appropriate and properly fitting face coverings while present in any campus building unless working alone in a laboratory or office space.

Individuals are expected to wear a face covering while inside any university building. Face coverings must be worn correctly (i.e., covering both your mouth and nose) in the building if you are attending class in person. If any student is unable to wear a face-covering, an

accommodation may be provided due to disability, medical condition, or other legitimate reason.

Students with disabilities or medical conditions who are unable to wear a face covering should contact the McBurney Disability Resource Center or their Access Consultant if they are already affiliated. Students requesting an accommodation unrelated to disability or medical condition, should contact the Dean of Students Office.

Students who choose not to wear a face covering may not attend in-person classes, unless they are approved for an accommodation or exemption. All other students not wearing a face covering will be asked to put one on or leave the classroom. Students who refuse to wear face coverings appropriately or adhere to other stated requirements will be reported to the Office of Student Conduct and Community Standards and will not be allowed to return to the classroom until they agree to comply with the face covering policy. An instructor may cancel or suspend a course in-person meeting if a person is in the classroom without an approved face covering in position over their nose and mouth and refuses to immediately comply.

Student should continually monitor themselves for COVID-19 symptoms and get tested for the virus if they have symptoms or have been in close contact with someone with COVID-19. Student should reach out to instructors as soon as possible if they become ill or need to isolate or quarantine, in order to make alternate plans for how to proceed with the course. Students are strongly encouraged to communicate with their instructor concerning their illness and the anticipated extent of their absence from the course (either in-person or remote). The instructor will work with the student to provide alternative ways to complete the course work.

Students should regularly check UW's websites for updates on COVID-19 related information and rules.

Useful Links:

- STUDENTS' RULES, RIGHTS & RESPONSIBILITIES
- UW-MADISON BADGER PLEDGE
- UW-MADISON FACE COVERING GUIDELINES

7 Communication with the instructor & TAs

- **READ THE SYLLABUS** before asking a question, please; the syllabus may answer it!
- For any questions with the course content that is not private or confidential, please post your questions to the MS Team's corresponding public channels—this can help other students who have a similar question.
- Should you see dead links (it does happen, usually with no notice), weird due dates, or other syllabus problems, please bring it up in the MS Team's general channel or email me as soon as possible.
- You are encouraged to communicate with TAs and me freely—during our regular office hours, lab time, or any other time there is a need. For any communication needs, **MS**

Teams will be the best method for getting directly to us (we check messages on Teams regularly, especially those in the public channels). If you email me, please put "**LIS 351**" in the subject header of your emails for faster response. I will try my best to respond to you within **24-48 business hours**.

- You are strongly encouraged to start working on your homework assignments as early as possible.

8 Tentative Course Schedule

Week	Course Topics	Lab Activities	Important Dues
Week 1: 1/25 – 1/31	Introduction	No lab for the first week	Join course Team
Week 2: 2/1 – 2/7	Computer Hardware Basics	(Jiang) Know your computer	Exercise 1
Week 3: 2/8 – 2/14	Network	(Wei) Check IP & MAC address	Exercise 2
Week 4: 2/15 – 2/21	Cybersecurity and digital privacy – Part 1	(Jiang) Threat model	Exercise 3
Week 5: 2/22 – 2/28	Cybersecurity and digital privacy – Part 2	(Jiang) Online personal security and privacy and actions to take	Exercise 4
Week 6: 3/1 – 3/7	Website Design and HTML basics	(Weiss) Project1: Website Design	Project1 milestone1
Week 7: 3/8 – 3/14	HTML Basics	(Weiss) Project1: Website Design	Project1 milestone2
Week 8: 3/15 – 3/21	HTML + CSS Basics	(Weiss) Project1: Website Design	Project1 milestone3
Week 9: 3/22 – 3/28	Usability and Usability Assessment Technology	(Weiss) Project1: Website Design	Project1 final submission
Week 10: 3/29 – 4/4	Database Design	(Wei) Project2: Database	Project 2 milestone1
Week 11: 4/5 – 4/11	SQL – Part 1	(Wei) Project2: Database	Project 2 milestone2
Week 12: 4/12 – 4/18	SQL – Part 2	(Wei) Project2: Database	Project 2 milestone3
Week 13: 4/19 – 4/25	Web search engines	(Wei) Project2: Database	Project 2 final submission
Week 14: 4/26 – 4/30	AI and Machine Learning Basics	(Weiss) Google advanced search	Exercise 5

Note: This syllabus is not a contract, and it may change partially as the instructor observes the needs from the class during the semester.