266 765 section 001 Syllabus

Data Visualization

WISCONSIN
UNIVERSITY OF WISCONSIN–MADISON

COURSE INFORMATION

Data Visualization
COMP SCI 765 001 (3 Credits)
2021 Fall [1222]

Prerequisite(s)
Graduate/professional standing

Instruction Mode
Classroom Instruction

Section Level Com B
False

Department: Computer Sciences
College: Letters and Science

2021 Fall [1222]
Term Start Date: Monday, 23-Aug-2021   **Term End Date:** Tuesday, 1-Feb-2022

Location and Schedule:
CRN: 250991222

How Credit Hours are Met :

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This class meets for (on average) two 75-minute class periods each week over the semester and carries the expectation that students will work on course learning activities (reading, writing, problem sets, studying, etc) for about 4 hours out of classroom for every class period. The syllabus and course web includes more information about meeting times and expectations for student work.

Regular and Substantive Student-Instructor Interaction :

This class includes direct instruction, providing feedback on student work, providing information about course content, facilitating discussion of course content, and other substantive interaction.

Class attendance during schedule periods is required and includes direct instruction, discussion, and in-class exercises.

Other Course Information :

See the course web page for details of class policies.

INSTRUCTORS AND TEACHING ASSISTANTS (TAs)

Instructors

Michael GLEICHER
✉ GLEICHER@CS.WISC.EDU

ABHAY Kumar
✉ ABHAY.KUMAR@WISC.EDU

Instructor Availability and Preferred Contact :

Office hours will be conducted both in-person and remotely. Students must follow physical distancing and health recommendations at the discretion of the instructor/TA.

The instructor is available by appointment, and will hold regularly scheduled "drop in" times as well. See the course web or his home page for details.

TA Availability and Preferred Contact :

Office hours will be conducted both in-person and remotely. Students must follow physical distancing and health recommendations at the discretion of the instructor/TA.

The TA is available by appointment and will hold occasional drop-in sessions that will be announced on Canvas, Piazza, or the Course Web.

COURSE OUTCOMES, GRADING, and OTHER COURSE MATERIALS

Course Learning Outcomes (CLOs) :

Understand what visualization is in the broad sense, with an emphasis on task and effectiveness.

S5756

Appreciate the potential for visualization, what it is good for (and not).

S5757

Perform design critique, especially for visualizations, but as a general skill.

S5758

Understand basic design process, and use it for visualization.

S5759

Appreciate visualization design in terms of its building blocks, and use this approach to design, redesign, and evaluate visualizations.

S5760

Understand common challenges encountered in creating visualizations, and have a sense of the existing strategies for addressing them.

S5761

Apply common design principles, and intuitions of how the pieces can be fit together, to design visualizations.

S5762

Appreciate the approaches to implementation, and select among the choices.

S5763

Appreciate how the ideas of visualization are used in practice.

S5764

Have a sense of what visualization research is.

S5765

Grading :

Grading details are provided on the course web.

Grading will be based on the following class elements:
- Participation in classroom and online activities
- Design challenges (small projects)
- Online discussions
- Regular online assignments (discussions and seek-and-finds)
- In-class exercises
- Online quizzes and surveys

Final grades will be determined by combining the types of graded aspects. Most small assignments will be graded coarsely, with consistent, timely completion being valued.

Class attendance is required. Acceptable completion of the majority of the small assignments is required to receive a good grade.

Course Website, Learning Management System and Digital Instructional Tools :

The course will use the university's learning management system, Canvas, as its primary platform. Students are responsible for announcements and other materials posted there.

The course will provide a public web page on a server supplied by the University. The permanent link has not yet been provided. The temprary link: https://graphics.cs.wisc.edu/Courses/765-f2021/ should provide a pointer to the proper place.

The course will use other online platforms for communication and assignments. See the course communication policy on the course web for details.

Discussion Sessions :

There will be no separate discussion sections. Discussions will be held during class periods and online.

Required Textbook, Software, & Other Course Materials :

All required reading materials will be provided online via the web, or through the Library's online services.

See the course webpage for a complete list.

The course webpage will provide links to required and optional resources.

Homework & Other Assignments :

There will be weekly "Seek and Find" assignments that require students to find visualizations that show class concepts.

There will be weekly reading assignments.

There will be weekly online discussion assignments.

There will be regular online surveys.

There will be regular design assignments that may have both in and out-of-class components.

There will be other online assignments, such as peer review.

See the course web for details.

EXAMS, QUIZZES, PAPERS & OTHER MAJOR GRADED WORK

Exams, Quizzes, Papers & Other Major Graded Work :

There will be no final exam for this class.

There will be "Design Challenges" (mini-projects) and a number of smaller assignments.

All assignments will be handed in via Canvas, except for in-class exercises that may be handed in on paper.

General Reminders for Remote Exams :

There will be no exams.

We will not use any proctoring tools and trust students to follow the rules of proper academic conduct.

ADDITIONAL COURSE INFORMATION AND ACADEMIC POLICIES

🏛 Privacy of Student Information & Digital Tools: Teaching & Learning Analytics & Proctoring Statement

The privacy and security of faculty, staff and students' personal information is a top priority for UW-Madison. The university carefully reviews and vets all campus-supported digital tools used to support teaching and learning, to help support success through learning analytics, and to enable proctoring capabilities. UW-Madison takes necessary steps to ensure that the providers of such tools prioritize proper handling of sensitive data in alignment with FERPA, industry standards and best practices.

Under the Family Educational Rights and Privacy Act (FERPA – which protects the privacy of student education records), student consent is not required for the university to share with school officials those student education records necessary for carrying out those university functions in which they have legitimate educationl interest. 34 CFR 99.31(a)(1)(i)(B). FERPA specifically allows universities to designate vendors such as digital tool providers as school officials, and accordingly to share with them personally identifiable information from student education records if they perform appropriate services for the university and are subject to all applicable requirements governing the use, disclosure and protection of student data.

Privacy of Student Records & the Use of Audio Recorded Lectures

See information about privacy of student records and the usage of audio-recorded lectures.

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

How to Succeed in This Course

Resource links to other campus services:

- University Health Services
- Undergraduate Academic Advising and Career Services
- Office of the Registrar
- Office of Student Financial Aid
- Dean of Students Office

Course Evaluations

Students will be provided with an opportunity to evaluate this course and your learning experience. Student participation is an integral component of this course, and your confidential feedback is important to me. I strongly encourage you to participate in the course evaluation.

Digital Course Evaluation (AEFIS)

UW-Madison uses a digital course evaluation survey tool called AEFIS. In most instances, you will receive an official email two weeks prior to the end of the semester, notifying you that your course evaluation is available. In the email you will receive a link to log into the course evaluation with your NetID. Evaluations are anonymous. Your participation is an integral component of this course, and your feedback is important to me. I strongly encourage you to participate in the course evaluation.

Students' Rules, Rights & Responsibilities

Rights & Responsibilities

For fall 2021, instructors and students should consult the following website for current campus health and safety guidance: covidresponse.wisc.edu.

Diversity & Inclusion Statement

Diversity 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.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Accommodations for Students with Disabilities

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 (UW-855) require the university to provide reasonable accommodations to students with disabilities to access and participate in its academic programs and educational services. Faculty and students share responsibility in the accommodation process. Students are expected to inform faculty [me] of their need for instructional accommodations during the beginning of the semester, or as soon as possible after being approved for accommodations. Faculty, will work either directly with the student or in coordination with the McBurney Center to provide reasonable instructional and course-related 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)

Academic Calendar & Religious Observances

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