CS8803-O23 Modern Internet Research Methods

Course Syllabus for Summer 2025

Delivery: 100% Web-Based, Asynchronous

Instructor Information

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About This Course

Welcome! This is a research-oriented course that covers new developments in Internet measurement techniques, with an emphasis on topics related to reliability, freedom, and security of modern Internet platforms.

The goals of this course are to:

a. Explore new research topics in the modern Internet interdisciplinary research areas.
b. Familiarize and experiment with techniques, tools, platforms and datasets.
c. Develop new research ideas and deliver an academic research paper. Use the course material as a starting point to brainstorm new research ideas and select a topic of interest. Perform the entire cycle from selecting a research topic, focusing on a specific research question, following through (e.g., data collection and analysis, system design and evaluation, etc.), and finally delivering the results through an academic paper.

Areas covered through the course

The topics the course discusses span three areas:

1. **Measurement Techniques for Internet and Cybersecurity Analytics**: Techniques to map and study the Internet host population along with the services it offers, and how these techniques can be leveraged for different applications, e.g. Internet infrastructure resilience, or cybersecurity analytics.

   Topics covered:

   - **Identifying and studying the "live" Internet host population at scale**. Passive and active scanning techniques for reliably identify which IPv4 addresses correspond to active, reachable devices on the Internet.
   - **IP space utilization inference**: Given IPv4 exhaustion, how can we more precisely infer which portions of the address space are actively utilized versus

assigned-but-idle or completely unassigned? Accurate measurements have important implications for resource management and policy.

- **Service prediction across ports**: Techniques to predict what services (e.g., HTTP, SSH) are running on any port—not just standard ones—using machine learning models, improve our visibility about how services are deployed, even when they don't follow expected port selections.
- **Spoofed traffic detection.** Measurement techniques to detect spoofed traffic that might interfere with scanning campaigns, data collection and measurements.
- **Internet infrastructure hijacking.** Techniques that can be (ab)used to overtake control of the Internet infrastructure (DNS & BGP hijacking). Techniques to detect infrastructure hijacking.
- **The certificate ecosystem.** A brief look into Web management. A measurement approach to identify **stale or revoked certificates** and how they maybe abused.
- **Internet voting** systems. An example technique to identify possible risks.

2. **Measurement Techniques for Studying Blocked Internet Access**: Techniques currently used to block access and measurement techniques used to detect when blocking is taking place.

   Topics covered:

   - What is censorship? Reviewing diverse **techniques used to enforce censorship**.
   - How are **censorship observatories designed.** An example observatory. Leveraging public observatories for longitudinal analysis.
   - Measurement techniques to **locate censorship devices.**
   - From rules to **machine learning based approaches** for detecting censorship **at scale**.

3. **Measurement Techniques for Understanding Abuse on Online Platforms**:

   Techniques used to map out the current landscape of abuse (toxicity, harassment, misinformation, etc.). Identify abusive behaviors and study abusive accounts on online platforms. Techniques that leverage social platforms for early warning.

   Topics covered:

   3A. Abuse on social platforms: hate, toxicity and harassment.

   - Classifying content related to hate, harassment and toxicity.
   - Detecting **toxic accounts and studying their trends and patterns.**

   3B. How entities abuse online platforms.

- Studying **sock puppet accounts.**
- **Online cybercrime** communities and approaches to understanding them.
- **Mining the GitHub platform** to identify suspicious repositories.

3C. False information spread on online platforms and the supporting Internet infrastructure.

- Identifying **false information** on online platforms.
- **Measuring relationships** among websites that spread misinformation.
- Studying the **ecosystem of Internet infrastructure that supports** misinformation websites.

4. **Sustainable research and ethics**: Finally, the course covers topics related to ethics guidelines when performing large-scale Internet measurements and discusses elements of sustainable research, such as transparency and reproducibility.

   Topics covered:

   - **Reproducibility and replicability** for experimental networking research
   - **Ethical frameworks** for Internet measurement studies

Research Project Format (or "Avenues to Approach a Research Topic")

The research areas are the areas that we cover with lectures-papers presentations. This list only serves as a starting point. The students are welcome and highly encouraged to branch out and explore from there, cutting across traditional boundaries.

Also, there are different "avenues" to explore a research question. The students are encouraged to shape their project based on their **background, interests, and goals**.

Common approaches include:

- **Literature Review**: Conduct a systematic review of existing research – typically does not involve coding.
- **Survey Study**: Design and distribute a questionnaire, and analyze the results to uncover trends or patterns.
- **Data Analysis**: Collect own dataset or use a public one to perform exploratory or in-depth analysis.
- **Learning Techniques**: Apply, evaluate, or even design an AI/ML method for a dataset related to a topic.
- **System Design**: Build and evaluate a system (e.g., a tool, pipeline, or framework) that tackles a specific problem.

- **Replication Study**: Reproduce and reassess results from a previously published paper—this could include publishing new datasets, re-running experiments, or testing under different conditions.
- **Prototype & White Paper**: Design and build a tool through a prototype that shows the core functionality, and write a white paper (typically short) that explains the main technical aspects.

Lectures Format

The instructor presents weekly prerecorded lectures, each lecture covers a topic along with associated techniques, platforms, or datasets (see course calendar below). The lectures are delivered across 16 modules. Through each module, the instructor presents 2-4 research papers delivered over 2-4 mini videos. In parallel, the students are assigned milestones that guide them towards the completion of their research project and paper (see the assignments section below).

Course Learning Objectives

The learning objectives of this course are to:

1. Describe the current state of research in the intersection of Internet measurements and cybersecurity. Specifically, you will learn about modern topics of broad and current interest related to the risks that the Internet infrastructure faces (e.g. Internet infrastructure hijacking), Internet censorship, abuse and entities on social platforms, web trust management, the ecosystem of false information on the web. Finally, you will learn about how to perform Internet measurements using ethical guidelines, and principles of sustainable research (e.g. replicability).
2. Describe a plethora of passive and active measurement techniques, data collection and analysis approaches for each of the above topics.
3. Demonstrate the ability to apply the learned techniques to different or new research questions.
4. Demonstrate the ability to put together a research project; from identifying a broad idea, to specifying a well-defined research question, outlining and executing a research approach to address it.
5. Demonstrate the ability to transfer a research project into an academic paper, and deliver a presentation of the paper.

Course Materials

There are no required books for this course. The lectures are based on academic papers.

Office Hours

Weekly on Wednesdays at 12:00 PM EST (noon), through Teams.

Course Assignments and Grading

As a research-oriented course, the main component and focus of the course is a semester-long research project. Each student, either by themselves or in a group, will work on a research project that will run through the entire semester. More specifically, the assignments, along with their weight on the final grade, are the following:

- **Research Interests questionnaire [1%]:** Students will complete a short questionnaire that the course staff will use to understand their interests and form groups.
- **Select a timeslot for the weekly meetings [0%]:** Students will receive their group assignments from the course staff during week 2. Use Ed Discussion to coordinate a communication platform and meeting time with your team. Then, select an available timeslot for a weekly check-in with the course staff.
- **Acknowledge the course policies [0%]:** The course policies must be acknowledged. Please reach out to the instructor if you have questions about the class policies.
- **Brainstorming assignments (I and II) [6%]:** Each student begins by working on a brainstorming assignment, which later evolves into the project proposal to guide the final project. Towards this goal, and as intermediate steps, each student will submit two brainstorming assignments that summarize the group's progress towards the proposal. The brainstorming assignments reflect progress as the group refines the project idea and gets ready for the proposal.
- **Research Problem and Related Work [5%]:** Each group starts a running draft of the paper and describes the main research problem they will work on, the paper's main contributions (typically a list of three main contributions), and the related work section.
- **GT GitHub repository and Overleaf Project [1%]:** Each group starts a GT GitHub repository and a GT Overleaf Project and shares the link with the instructional team.
- **Project Proposal [5%]**: Each group expands its running draft to include all sections of the paper in a skeleton format. The project proposal will explain the problem and approach in detail. Also, the proposal will include a schedule that outlines how the group will distribute the work throughout the semester and among the team members. Therefore, each team member has the tasks they are working on. Each group will split their work into milestones (for example, milestones can include: data collection, data analysis, system design, system implementation, system evaluation).

After the project proposal deadline, each group is set in terms of team members, specific research problem, and approach. No further changes are allowed after this point.

- **Identify the target conference [1%]:** Submit the URL of the conference where you plan to submit, along with information on deadlines and formatting, or the type of submission.
- **Research Milestones [36% equally distributed]:** Teams will submit a PDF of the project's current state based on the milestones stated in the project proposal. The due dates for each milestone are listed below in the schedule.
- **Weekly Check-in Log and Meeting with Instructional Team [14%]:** Each student will submit a brief individual log summarizing their contributions to the group project for the week. These check-ins serve to support progress, identify challenges, and ensure accountability. These reflections will form the basis for short weekly check-in meetings with the instructional team. Participation and thoughtful responses are required to receive full credit.
- **Lecture Quizzes [5%]:** Students will complete a quiz on each lecture. The quizzes are “open book” and open resources. Due at the end of each week.
- **Final Project code [4%]:** Each group submits the code for the project. Each group is required to use Georgia Tech’s GitHub repository to host the project code throughout the course.
- **Final Paper presentation [6%]:** . Each group will prepare and record a 15–20-minute presentation on their project.
- **Final Paper [6%]:** Each group will write a 10-12 page final report written in academic style format. Each group is required to use Georgia Tech’s Overleaf to host the paper throughout the course.
- **Class Roundtable Discussions [10%]:** In the first two weeks of the course, our roundtable discussions will be to share our research interests on the course's Ed Discussion forum. Please see the Ed Discussion thread and write a comment there to describe to your classmates your research interests. From Week 3 and forward, a student or students will be assigned to give a 5–10-minute presentation about the problem they are working on (e.g., the specific problem, a paper they recently read etc.). The rest of the students, who are not assigned to present, comment on the presentation in a constructive manner, with follow-up questions. Each student is assigned to give a short presentation once throughout the semester. The instructor will coordinate with each student about which week to do their short presentation.
- **Extra credit I: Results dissemination [extra credit 10%]:** Each group is encouraged to disseminate their project either with a general high-level description or a more detailed description of the results. Examples can include: **1)** Setting-up a

webpage on sites.gatech.edu, (setting up the website takes only a few minutes!) and include your title and abstract, **2)** Submit the link to your presentation to the OMSCS conference and showcase, **3)** Create a public GitHub repository hosting your code and instructions how to run your scripts, **4)** Reach out to the instructors if you have other ideas, e.g. an interactive environment where others can run your scripts.

- **Extra credit II: Course surveys [extra credit 3%]:** Throughout the semester, the instructional team will send out three surveys to provide course feedback.

Forming a Team, Team Size, and Proposed Work

Why work within a group? As is highly likely, you will confirm for yourself that writing an academic paper is different than putting together an end-of-semester class report, and it greatly benefits from teamwork. **The goal of this course is to guide you on how to write an academic paper on a topic that you are passionate about, and to get it published.**

If we take a look at Google Scholar to identify our favorite papers, we will notice that, in practice, **almost no academic paper is written by a single author!** And there are several good reasons for that, including: 1) Performing the entire research cycle from conceiving an idea to narrowing down to a specific topic, and delivering the results through an academic paper is a very rewarding and time-consuming process. 2) Brainstorming, interacting with others, problem solving, and pushing through can make your paper so much better and increase the chances that your paper will be accepted in top academic conferences.

How do we go about forming groups, and what about team size? Students will work in groups of three. Each student will be assigned to a group based on the research interests questionnaire that is filled out in the first week of classes. If you are interested in working with specific students, please let the course staff know via Ed. The teams are formed based on research interests, diverse backgrounds, expertise and skillset. Therefore, the overall work of each group will benefit, and each student will be provided the opportunity to bring in their unique skills and perspective to their team.

Note: Please contact the instructors if you have concerns about group formation or working within a group in general.

Grading Scale

The final grade will be assigned as a letter grade according to the following scale:

- A 90-100%
- B 80-89%
- C 70-79%

- D 60-69%
- F 0-59%

Course Prerequisites

The course is geared towards students who are interested in pursuing a research project and writing an academic paper.

This is a research-oriented course that intersects topics in Internet protocols, computer networks, cybersecurity and data analysis. Having taken courses in topics related to systems, ML/AI, data visualizations, data structures, algorithms, computer architecture is a plus, since the student will be able to leverage their background in these areas to pursue a research project and write an academic paper. The course will not cover undergraduate material typically covered in undergraduate networking, cybersecurity or data analysis courses. The students are expected to code in Python (or a language of their choice) at an intermediate level (e.g. comfortably using object-oriented programming, data structures, control structures, etc. as well as testing and debugging tools/strategies).

In lieu of a readiness questionnaire, prospective students are expected to be comfortable with and/or passionate about:

- Reading and understanding the paper "*An Open Platform to Teach How the Internet Practically Works".*
- Defining their own research questions/ideas, and therefore working with open-ended projects rather than predefined assignments.
- Student-led projects that require more autonomy and taking ownership of the work and the progress/pace.
- Working with projects that require coding skills, as well as technical writing and presentation skills.
- Receiving peer-to-peer feedback.
- Working in a group of students with multidisciplinary backgrounds.

Course Calendar (Condensed)

Unless otherwise specified, all deliverables, module quizzes, and check-in logs are due on Sundays at 11:59 PM AOE.

The initial post for the class roundtable discussions is due on Friday at 11:59 PM AOE, and the responses are due on Sunday at 11:59 PM AOE.

Week	Dates	Module(s)	Key Deliverables / Notes
1	May 12 – 18	1	Research interests questionnaire; Brainstorming I; Course policy acknowledgement
2	May 19 – 25	2	Brainstorming II; Meeting timeslot selection
3	May 26 – Jun 1	3	Research problem & related work; GitHub & Overleaf setup
4	Jun 2 – 8	4	Project proposal
5	Jun 9 – 15	5 – 6	Identify target conferences
6	Jun 16 – 22	7 – 8	—
7	Jun 23 – 29	9 – 10	Milestone I
8	Jun 30 – Jul 6	11 – 12	—
9	Jul 7 – 13	13 – 14	Milestone II
10	Jul 14 – 20	15	—
11	Jul 21 – 27	16	Submit final paper, code, and presentation
12	Jul 28 – 31	—	Course ends Thursday; Final instructional days July 21–22
	Aug 4	—	Grades due to the Registrar

Legend (modules → titles):

1. Course Overview
2. Surveying the Internet Address Space (I)
3. Surveying the Internet Address Space (II)
4. Overtaking the Internet Infrastructure Control
5. Internet Censorship [I]
6. Internet Censorship [II]
7. Web and Trust Management
8. Measurements & Voting Systems
9. Abuse on Social Platforms
10. Entities on Social Platforms
11. False Information on Web & Social Media
12. The False Information Ecosystem
13. Online Platforms as a Vantage Point to Study Cybercrime Communities
14. Ethics in Internet Measurements
15. Sustainable Research: Transparency & Reproducibility
16. Reading, Writing & Presenting Papers

Course Calendar (Full)

Week 1 (May 12 – 18)

Module 1: Course Intro & Crash Review: "How the Internet Works"

Topics:

- What is the course about? Learning goals
- Overview of course topics and techniques
- How we will approach each topic
- Reviewing how the Internet works

Readings:

1. An Open Platform to Teach How the Internet Practically Works [CCR 2020]

Deliverables:

- Research interests questionnaire
- Brainstorming I
- Course policy acknowledgement
- Lecture Quiz (Due in the second week to allow for late enrollments)
- Class Roundtable Discussion

Week 2 (May 19 – 25)

Module 2: Surveying the Internet Address Space (I)

Topics:

- Internet scanning as a key Internet measurement technique, and its practical applications.
- Probing techniques to test host responsiveness.
- A method to predict hosted services across ports.
- Good Internet citizenship. Practical and ethical considerations for designing scanning tools and experiments.

Readings:

1. Scanning the Internet for Liveness [ACM CCR, 2018]
2. Predicting IPv4 Services Across All Ports [SIGCOMM, 2022]

Deliverables:

- Brainstorming II
- Meeting timeslot selection
- Lecture Quiz
- Class Roundtable Discussion

Week 3 (May 26 – Jun 1)

Module 3: Surveying the Internet Address Space (II)

Topics:

- A technique for inferring IP address utilization.
- Classifying IP address space by usage.
- A technique to identify spoofed traffic that might be interfering with probing measurements.

Readings:

1. Lost in Space: Improving Inference of IPv4 Address Space Utilization [JSAC, 2016]
2. Detection, Classification, and Analysis of Inter-Domain Traffic with Spoofed Source IP Addresses [Internet Measurement Conference (IMC), 2017]

Deliverables:

- Research problem & related work
- GitHub & Overleaf setup
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 4 (Jun 2 – 8)

Module 4: Overtaking the Internet Infrastructure Control

Topics:

- How cyberactors can overtake (hijack) Internet infrastructure, namely DNS and BGP-based infrastructure.
- Example approaches to detect hijacking.

Readings:

1. Retroactive Identification of Targeted DNS Infrastructure Hijacking [Internet Measurement Conference (IMC), 2022]
2. Profiling BGP Serial Hijackers: Capturing Persistent Misbehavior in the Global Routing Table [Internet Measurement Conference (IMC), 2019]

Deliverables:

- Project proposal
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 5 (Jun 9 – 15)

Module 5: Internet Censorship I

Topics:

- What is Internet censorship: An overview of content blocking methods and approaches.
- A technique to identify and locate censorship devices

Readings:

1. Network Measurement Methods for Locating and Examining Censorship Devices [CONEXT, 2022]

Module 6: Internet Censorship II

Topics:

- What are Internet censorship observatories? An example observatory and how it is designed.
- A technique to detect censorship at scale. From rule based to ML based censorship detection.

Readings:

- Censored Planet: An Internet-wide, Longitudinal Censorship Observatory [CCS, 2020]
- Augmenting Rule-based DNS Censorship Detection at Scale with Machine Learning [ACM SGKDD, 2023]

Deliverables:

- Identify target conferences
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 6 (Jun 16 – 22)

Module 7: Web and Trust Management

Topics:

- How certificate issuance works.
- A measurement approach to identify certificates that are stale or revoked certificates, and how they can be abused.

Readings:

1. Stale TLS Certificates: Investigating Precarious Third-Party Access to Valid TLS Keys [IMC, 2023]

2. Towards a complete view of the certificate ecosystem. [IMC, 2016]
3. An End-to-End Measurement of Certificate Revocation in the Web's PKI [IMC, 2015]

Module 8: Measurements & Voting Systems

Topics:

- How certificate issuance works.
- A measurement approach to identify certificates that are stale or revoked certificates, and how they can be abused.

Readings:

1. Security Analysis of the Democracy Live Online Voting System [Initial public version] [USENIX, 2021]
2. Can Voters Detect Malicious Manipulation of Ballot Marking Devices? [OAKLAND, 2020]

Deliverables:

- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 7 (Jun 23 – 29)

Module 9: The Landscape of Abuse on Social Platforms

Topics:

- An overview of abuse on social platforms with a focus on toxicity, hate and harassment.
- A method to study behaviors, trends and patterns of toxic accounts.
- Example strategies to identify toxic content.

Readings:

1. SoK: Hate, Harassment, and the changing landscape of Online Abuse. [OAKLAND, 2021]
2. Understanding the Behaviors of Toxic Accounts on Reddit. [WWW, 2023]
3. Designing Toxic Content Classification for a Diversity of Perspectives [USENIX SOUPS, 2021]

Module 10: Entities on Social Platforms

Topics:

- A taxonomy of abusive accounts and the spectrum of their behaviors.
- A technique to study sock puppet accounts
- An example technique to detect abusive accounts at scale.

Readings:

1. An Army of Me: Sockpuppets in Online Discussion Communities. [WWW, 2017]
2. Deep Entity Classification: Abusive Account Detection for Online Social Networks [USENIX, 2021]

Deliverables:

- Milestone I
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 8 (Jun 30 – Jul 6)

Module 11: False Information on the Web and Social Platforms

Topics:

- An overview of false information on the web and social platforms.
- An example technique to detect cross-platform spread.

Readings:

1. False Information on Web and Social Media: A Survey [Book chapter, CRC Press, 2018]
2. Cross-Platform Multimodal Misinformation: Taxonomy, Characteristics and Detection for Textual Posts and Videos [ICWSM, 2022]

Module 12: The False Information Ecosystem

Topics:

- A technique to identify Internet infrastructure (domain registrars, email providers, advertising partners) that supports websites with false information (e.g. websites with narratives, conspiracy theories).
- A graph-based technique to understand the underlying relationship between news websites and false information websites.

Readings:

1. On the Infrastructure Providers that Support Misinformation Websites [ICWSM, 2022]
2. No Calm in The Storm: Investigating QAnon Website Relationships [ICWSM, 2022]

Deliverables:

- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 9 (Jul 7 – 13)

Module 13: Online Social Platforms as a Vantage Point to Study Online Cybecrime Communities

- Online cybercrime communities: how different disciplines approach to understanding them.
- Mining online platforms.
- An example technique to mine the GitHub platform to identify potentially suspicious repositories.

Readings:

1. SourceFinder: Finding Malware Source-Code from Publicly Available Repositories [USENIX RAID, 2020]
2. The Art of Cybercrime Community Research [ACM Computing Surveys, 2024]

Module 14: Ethics in Internet Measurements

Topics:

- Overview of ethical challenges and risks faced by measurement studies, including sensitive Internet data
- Overview of ethics norms: informed consent, human rights, releasing and using shared data, hacking, analysis techniques, ethical review, and Research Ethics Boards (REBs)

Readings:

1. Ethical issues in research using datasets of illicit origin [IMC, 2017]
2. Understanding the Ethical Frameworks of Internet Measurement Studies [NDSS, 2023]

Deliverables:

- Milestone II
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 10 (Jul 14 – 20)

Module 15: Sustainable Research: The Importance of Transparency, Reproducibility & Replicability

Topics:

- Goals & challenges of reproducible research
- ACM definitions: repeatability, reproducibility, replicability
- Best practices for scientific Internet research

Readings:

- The Dagstuhl Beginners Guide to Reproducibility for Experimental Networking Research [ACM CCR, 2019]
- Encouraging Reproducibility in Scientific Research of the Internet [NSF Seminar, 2018]
- Reproducibility and Replicability of Web Measurement Studies [WWW, 2022]

Deliverables:

- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 11 (Jul 21 – 27)

Module 16: Reading, Writing and Presenting Papers

Topics:

- Structuring an academic paper
- Delivering a paper presentation

Readings:

- How to read a paper
- LaTeX template
- Writing tips
- How to Give a Great Research Talk. YouTube video, Microsoft Research, 2016
- How to Write a Great Research Paper. YouTube video, Microsoft Research, 2016

Deliverables:

- Submit final paper, code, and presentation
- Lecture Quiz
- Class Roundtable Discussion
- Check-in with Teaching Team

Week 12 (Jul 28 – 31)

End of Course

- Course ends Thursday, July 31
- Final instructional days: July 21–22 (see GT summer calendar)

Deliverables:

- *(none)*

Course Policies

Late submissions & extensions. The students are expected to complete the work on time by the due dates. In case of an emergency, please reach out to TA team through a private Ed Stem post, so we can come up with a plan to make up for the work or alternative solutions, depending on the type of the emergency and the impact it has.

Plagiarism & academic integrity. Students are expected to follow the Georgia Tech Honor Code (https://policylibrary.gatech.edu/student-life/academic-honor-code), including the Graduate Addendum. All incidents of suspected dishonesty will be reported to and handled by the Office of Student Integrity. If in doubt to whether an action is allowed in this course, please ask the Instructor/TAs.

In addition, the following specific policies apply to this course:

1. If your MIRM project is the same or similar to a project that you are working on in the current semester or you have worked on in previous semesters (e.g. other class projects, or 8903s, etc.), you must communicate with the instructional team to carve out a piece that is appropriate and specific for the MIRM course for the current semester.
2. ACM guidelines on Authorship and Acknowledgements: https://www.acm.org/publications/policies/new-acm-policy-on-authorship
3. ACM guideline on the use of AI: https://www.acm.org/publications/policies/frequently-asked-questions
4. According to the ACM guidelines for Acknowledgements we ask that you Acknowledge the MIRM course for providing guidance for your paper. For example the following statement is sufficient to acknowledge our course's contribution in guidance.

   "We would like to thank the Georgia Tech OMSCS-8803-O23 Modern Internet Research Methods course instructional team for supervising the first draft of this paper."

5. To help inform prospective students about the types of papers the MIRM instructional team work on with the students, we plan to include a high level description of each semester's projects on the course's website.

Ed Discussion code of conduct. The students are expected to be respectful with others when interacting on Ed Discussion. Please review the students' code of conduct. https://policylibrary.gatech.edu/student-life/student-code-conduct

Georgia Tech student resources & student accommodation. The Disability Services team collaborates with the students to find creative solutions and reasonable accommodation. Please contact the Office of Disability Services at (404)894-2563 or http://disabilityservices.gatech.edu/, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodation letter. Please also send a private message to "Instructors" on Ed Stem as soon as possible. Please note that the

TA team is not able to provide any accommodation or extensions without an accommodation letter, nor the accommodations can be provided retroactively.

Communication Policy

Please use Ed Discussion (available via Canvas course site) for all communication with the instructional team.

Subject to Change Note

Please note that the current syllabus is subject to change at any time.