

Undergraduate Research and Project Resource Manual

School of History and Sociology
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0 Project Index

Use this index to quickly find useful resources by type of project. However, this index is not comprehensive and we encourage you to think creatively as you design and execute your project!

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1 Basic Research

1.1 The Library Store

About

The Library Store is a student, faculty member or visitor's first stop on their research journey and the portal to everything the Georgia Tech Library has to offer. Whether you need equipment, to learn your way around, to check out course reserves, or simply to ask a general question, this is where you start.

Location and Hours

- The Grove Level of Crosland Tower.
- Monday - Friday - 8:00 am to 9:00 pm
- Saturday & Sunday - 9:00 am to 5:00 pm
- Reference assistance is available in-person and by phone at 404-894-4500. In-depth queries may be referred to Research Services.

Services

- Pick up requested "gadgets"
- Have a consultation with Library Subject Matter Experts
- Browse and search course reserves
- Pick up hold items placed online via the Library Catalog

1.2 The Library Catalog

About

A majority of the Library's physical collection — the very core of all preconceived notions of what a research library is and how librarians serve — left the Georgia Tech Library space. The Georgia Tech Library and Emory University Libraries operate a state-of-the-art, climate-controlled service facility known as the Library Service Center (LSC). About 95 percent of Georgia Tech's physical collection is housed in the building, freeing up valuable space in the Price Gilbert Library and Crosland buildings for student and faculty use. Students, Faculty, and Staff from both Emory and Georgia Tech will be able to use the center.

The Library is still a place that facilitates access to information to produce useful knowledge, just as it always has been. The Library is a space and a network of services that accomplishes this mission, even without the print copy books directly located on site. There have been many gains in the digital access to information in recent years, and the Georgia Tech Library will have space and services to match these digital gains after the renewal is complete.

Location and Hours

- Website: library.gatech.edu/library-next ; Hours: 24/7

-

1.3 Library Subject Matter Experts

About

Do you need expert help finding information or resources for a paper or research project? Questions about the Georgia Tech Open Access Policy, or about complying with funder mandates? Copyright or author rights concerns, or questions about scholarly communication issues?

Assistance is available with the Library's [Subject Experts](#). The service is available to individuals or groups, and is offered on both a drop-in and appointment basis.

For assistance with more specialized topics or more in-depth help, we recommend making a customized appointment with a specialist for the needed expertise.

Location and Hours

- Crosland Tower
- Schedules vary. Please contact individual experts at: <https://www.library.gatech.edu/experts> or request a consultation at: <https://forms.library.gatech.edu/consultation>.

Services

The subject experts can offer advice on ways to research topics and assistance with verification of bibliographic citations. These librarians also provide library orientations; general & subject specific library classes in your subject area; and assistance in developing research assignments.

2 Help with Communication

2.1 The Naugle Communications Center

About

The Communication Center, located in Clough Undergraduate Learning Commons 447, promotes excellence in WOVEN communication—written, oral, visual, electronic, and nonverbal—in ways that enable members of the Georgia Tech community to have greater success in their academic and workplace careers, as well as in their civic and community lives.

At the Communication Center, students from all disciplines at Georgia Tech work with tutors with expertise in core areas of communication. From tutors, students learn both conventional and innovative techniques of communication and diverse strategies for effectively conveying ideas. Students collaborate with tutors to improve upon defining, realizing, and relaying their own interests and needs as communicators. By talking with tutors about such aspects as the audience, format, medium, and style of their projects, students further develop their written, oral, visual, electronic, and non-verbal communication skills

Location and Hours

- Make an appointment online: <http://www.communicationcenter.gatech.edu>
- The Naugle CommLab is located in Clough Commons 447.

Services

For whatever you are working on, we help you find the most effective way to communicate your message. All of our services are free and confidential. Please contact us: email at COMMLAB@GATECH.EDU or call 404-385-361. At the Communication Center, students from all disciplines at Georgia Tech work with tutors with expertise in core areas of communication. From tutors, students learn both conventional and innovative techniques of communication and diverse strategies for effectively conveying ideas. Students collaborate with tutors to improve upon defining, realizing, and relaying their own interests and needs as communicators. By talking with tutors about such aspects as the audience, format, medium, and style of their projects, students further develop their written, oral, visual, electronic, and non-verbal communication skills. The Naugle CommLab trained consultants help undergraduate and graduate students with:

- written projects
- multimodal projects
- graduate school applications
- lab reports
- individual and group presentations
- poster designs
- grant proposals
- cover letters, resumes, and CVs

2.2 TECHStyle

About

TECHStyle, an online forum for digital pedagogy and research by the Brittain Fellows at Georgia Tech. *TECHStyle* is the online journal of the Brittain Fellowship. Here you will find posts from Brittain Fellows on topics related to teaching, research, technology, and life in academia. Posts range from scholarly articles in development to brief reflections on new teaching strategies. *TECHStyle* is also a venue for debate on questions related to pedagogy and scholarship as well as a message board for news, announcements, committee reports, and calls for participation. *TECHStyle* gives voice to a vibrant community of innovative scholars and teachers and opens up that conversation to the world.

Location and Hours

- Website: techstyle.lmc.gatech.edu/about/

2.3 Text Editors

About

A text editor is a tool for working in plain text. Text editors are standard features on all operating systems. For many projects, a text editor is a better tool than a word processor as they provide a distraction free writing environment. Text editors also allow you to write in plain text, which assures total compatibility across between systems. This is especially useful if you are writing text that will move across platforms and will format the text in another system e.g., from your computer to a website. In contrast to a text editor, a word processor is any program through which text (and, often, other types of media) can be formatted and prepared for printing, whether physical or electronic. These give the user extensive control over the visual qualities of the document

Recommended Tools:

- [Notepad++](#)
- [Sublime Text](#)
- [iAWriter](#)

3 Guides for Planning Your Project

3.1 Lynda Instructional Videos

About

Lynda is an online subscription library that teaches the latest software tools and skills through high-quality instructional videos taught by recognized industry experts.

Location and Hours

Lynda is available 24/7 at <http://lynda.gatech.edu>

Services

Georgia Tech is now providing unlimited access to lynda.com for all faculty, staff, and students.

3.2 Project Planning Guides

- [For Beginners, What Makes a Good DH project?](#) Alok Amatya, HASTAC
- [How to Get a Digital Humanities Project Off the Ground](#) Paige Morgan, HASTAC
- [Template for Planning your Digital Project](#)
- [Getting the Writing Done: Completing your paper, thesis, or dissertation](#) Kalle Westerling, HASTAC

4 Project Tools, Tutorials, & Readings

4.1 3D Printing

Recommended Tools

- Free models: <https://www.thingiverse.com/>

Recommended Reading

- 3D Printing in Digital Humanities: <http://guides.laguardia.edu/digitalhumanities/3dprinters>
- Critical Making approach: <https://bouncingideas.wordpress.com/2013/06/26/critical-making-a-3d-printed-gun/>

IAC projects using 3D printing

- Jean Ho Chu's prayer nuts project: <http://www.jeanhochu.com/prayer-nuts.html>
- Making hardware for civic data science: <http://civicdatascience.gatech.edu/2017/07/28/seeing-like-a-bike-cycling-into-the-sunset/>

4.2 App Development

Recommended Resources

- Android
 - Android docs: <https://developer.android.com/training/index.html>
 - Android studio guide: <https://developer.android.com/studio/intro/index.html>
 - Android studio installer: <https://developer.android.com/studio/install.html>
 - Learn Java: <https://www.codecademy.com/learn/learn-java>
- iOS
 - Apple docs: <https://developer.apple.com/>
 - Learn swift: <https://developer.apple.com/swift/playgrounds/>
 - Learn swift basics: <https://codewithchris.com/learn-swift/>
 - Swift advanced: <https://www.learnswift.tips/>
- React - A javascript shell that creates both iOS and Android components for cross platform apps
 - React native: <https://reactnative.com>
 - React native tutorial: <https://www.raywenderlich.com/165140/react-native-tutorial-building-ios-android-apps-javascript>
- General coding support: <https://www.stackoverflow.com>

4.3 Audio and Podcast Production

Podcasts are simply audio files that are published online. Podcasts can also include video or other sorts of file formats but for the purpose of this post, we're talking about audio podcasts. It's easier than ever to create a podcast. You will need:

- either a phone, tablet, or computer
- an external microphone for better audio quality (or you can use the inbuilt mic)
- simple software or app for recording
- a blog to house your podcast if you wish
- an idea!

There are many ways to create a podcast. These steps from Edublog, demonstrate a simple workflow if you want to create a podcast and publish it on a blog.

1. Script or outline what you're going to say, remembering to include an introduction and conclusion.
2. Find a quiet place to record if you can. Easier said than done in a school? You probably don't have a recording studio available but recording in a room with carpet/soft furnishings/window coverings if possible will create better results.
3. Record the podcast on some kind of software or app, for example, Voice Memos on iPad or iPhone. If you're using a computer, [Audacity](#) is a popular choice for free software, as is [GarageBand](#) for Mac users. Remember, an external microphone will definitely offer better sound quality if you have the resources.
4. Optional: Use your software, like Garageband, to edit your podcast. Remove parts you don't need and consider adding sound effects. Check out the list of places to find free music and sound effects from [Richard Byrne](#) and [Larry Ferlazzo](#).
5. If the audio file of your podcast isn't too big, you can upload it straight to your blog post [following these simple instructions](#).
6. If you don't have the space, or you're wanting to create a series of podcasts, consider embedding your podcast. The first step is to upload your files to a free platform like [Soundcloud](#) or [Podbean](#). These files can then be embedded on your blog by [following these instructions](#).

Recommended Tools

- [Audiotool](#) (free, web-based application for electronic music production; meant to serve as a fully functioning virtual studio. Users drop and drag synthesizers, drum machines, sequencers, filters, samples, and note sequences into the workspace from a toolbar)
- [Augmented Notes](#) ("integrates scores and audio files to produce interactive multimedia websites in which measures of the score are highlighted in time with music")
- [MusicAlgorithms](#) (tools and resources for the creation and analysis of algorithmically-generated music)
- [Paperphone](#) ("interactive audio app that processes vocal performance in realtime, designed for presentations & sound essays")
- [Praat](#) (free software package for phonetic analysis; designed to analyse, synthesize, manipulate, and visualize speech)
- [Sonic Visualiser](#) (program to facilitate study of musical recordings; "of particular interest to musicologists, archivists, signal-processing researchers and anyone else looking for a friendly way to take a look at what lies inside the audio file")

Recommended Reading

Audio Editing Tutorials: JISC Guides,

- ["An Introduction to Digital Audio"](#)
- ["Audio Post-Production Techniques for Spoken Word"](#)
- ["Audio Processing - Dynamics and Compression"](#)
- ["Audio/Video Production: Recording Lectures, Seminars and Events"](#)
- ["Basic Audio Editing"](#)

4.4 Cleaning Data and Databases

Data cleaning is a tedious but crucial prerequisite for many digital humanities project. Whether due to inconsistencies in the original data or mistakes created during data entry, data may contain problems like inconsistent spellings and abbreviations or mismatched date formats. These errors can present a problem for tools and prevent a researcher from moving forward with analysis.

Recommended Tools

- OpenRefine (<http://openrefine.org/>, [tutorial](#)) - OpenRefine (formerly known as GoogleRefine) is a free open source tool for cleaning, transforming, and exploring data. It accepts common spreadsheet formats such as .xlsx and .csv. One of OpenRefine's most helpful features is its ability to track and keep record of changes to the data. If you make a mistake with cleaning up your data, you can rewind to any step in the data transformation process. OpenRefine can also identify duplicate entries, cluster variations of the same word (e.g. history, HISTORY, and History can be merged into one label), and remove blank entries.
- Tutorials for more advanced tools can be found [here](#).

Recommended Reading

- [What is data in the digital humanities?](#) By CHRISTOF SCHÖCH in the Journal of Digital Humanities
- [Information](#) (a curated list of resources and pedagogical artifacts on the subject)
- [Thomas Padilla, "Getting Started with Open Refine"](#): a great applied introduction to OpenRefine basics with a DH use cases
- [Best Practices for File Naming](#)
- [Data and Databases](#) (a conceptual overview with examples and classroom exercises)
- [Database and Narrative](#) (a continuation of the above)

4.5 Data Visualization

Recommended Tools

- Tableau ([tutorial](#))
A feature-rich visualization platform.
<http://www.tableau.com/>
- Google FusionTables ([tutorial](#))
A tool for visualizing spreadsheet data.
<https://support.google.com/fusiontables/answer/2571232?hl=en>
- Palladio ([tutorial](#), [another](#))
A platform for visualizing humanities data.
<http://hdlab.stanford.edu/palladio/>
- D3.js ([tutorial](#))
A javascript library for visualizing data.
<https://d3js.org/>

Recommended Reading

- [Visualization](#) (conceptual overview with examples and classroom exercises)

Recommended Tutorials

- Tableau Learning Material
 - <https://www.tableau.com/learn/training>
 - <https://www.tutorialgateway.org/tableau/>
 - <https://www.tableau.com/learn/starter-kits/resources>
 - <https://www.tableau.com/solutions/gallery>
- Extensive Data Viz Course Resource Repository
 - <https://datavis17.wordpress.com/resources/>
- Color Tools
 - 0 to 255 – Useful for generating web-safe color palettesColor Brewer 2.0 – Web-based tool to generate color palettesColor Laboratory – Another web-based tool to create swatches and palettes. Also allows the user to simulate how colors would be perceived by people with 8 types of color deficiency.
 - Choosing Colors: <http://www.b-eye-network.com/newsletters/ben/2235>

4.6 Digital Project Development

Recommended Tools

- Need some help deciding what software to use in your project? Bamboo DiRT(<https://dirtdirectory.org>) is a repository of digital tools for scholars, and can help you decide on what programs to use based on your needs.
- The Programming Historian (<https://programminghistorian.org/en/>) publishes novice-friendly, peer-reviewed tutorials that help humanists learn a wide range of digital tools, techniques, and workflows to

facilitate research and teaching. They are committed to fostering a diverse and inclusive community of editors, writers, and readers.

4.7 Digital Scholarly Publishing

Learning HTML is no longer a requirement for building a website for your project. There are many platforms-- general-purpose platforms and ones tailored to specific kinds of projects-- that allow you to build much more sophisticated project sites than would be possible if you were building from scratch. When choosing a platform for your project website, the major factors to consider include functionality, familiarity, community, support, and cost.

Recommended Tools:

- [MediaWiki](#) - wiki platform used by Wikipedia and the [Brueghel Family Research Website](#).
- [Omeka](#), free/paid hosted version available at <http://www.omeka.net/>; designed for publishing collections/exhibits. [tutorial part i](#), [tutorial part ii](#))
- [Scalar](#) is often used for multi-modal projects, and excels in multimedia annotation. The Scalar site includes [a few examples of projects that use it](#).
- SquareSpace, free/paid hosted versions available. No HTML required.
- Weebly, free/paid hosted versions available. No HTML required.
- WordPress ([tutorial](#)) - A flexible content management system for blogging and other text and image-based scholarship. <http://wordpress.com>. lots of plugins are available to turn WordPress into a platform for text annotation ([CommentPress](#)), social networking ([BuddyPress](#)), etc.

4.8 Maps

Recommended Tools:

Choose one of these tools to create a map for a course project, research paper, or to support a personal interest. Each has different capabilities and source data.

- ArcGIS - The industry standard for GIS analysis and visualization. <http://www.arcgis.com/>
- [ArcGIS Online](#) - A free web-based mapping tool from ESRI.
- [Batchgeo.com](#) - Transform data into maps! This tool assigns a geographic location to addresses and generates maps of those locations.
- [Carto](#) - Software as a service (SaaS) cloud computer platform that allows for GIS and web mapping tools within your web browser. Accounts are free up to a certain size with larger storage and features associated with fees. Tool provides the ability to quickly create maps from a spreadsheet that has geographic identifiers such as states, nations or X,Y coordinates.
- Curatescape - Github: <https://github.com/CPHDH/Curatescape>
- [DIYMaps.net](#) - Very basic. Download to your computer and create maps that color-code groups of counties within a state, or groups of states in the U.S., Canada, or Mexico.
- GeoCommons ([tutorial](#)) - <http://geocommons.com/>

- [GeoCommons Archive](#) - GeoCommons is a community contributed collection of open data from around the world. Uploaded by the public, data are often from public and open government website and sources. The [searchable archive](#) includes over 150,000 datasets as GeoJSON stored in Github and available to preview, download or explore.
- [Google Earth Pro](#)
- Google Maps ([tutorial](#)) - <http://maps.google.com>
- [Google Maps - My Places](#) - Create a free account and create maps of places that matter to you.
- [GunnMap](#) - Use pre-loaded data or upload your own. Maps can be exported as images (jpg, png, svg).
- [IMF Data Mapper](#) - Visualize economic data from the International Monetary Fund (IMF) about its 188 member countries. (See [GeoWeb Applications tab](#) for more like this!)
- [Indie Mapper](#) - Create static thematic maps. Geographic base maps and topical data library provided. Data derived from selected international intergovernmental agencies including the United Nations, World Bank, World Health Organization, Food & Agriculture Organization, World Nuclear Association, U.S. Office of Foreign Disaster Assistance.
- [Map Creator](#) - Free download. MapCreator works on Windows Vista/XP/2000 platforms. Create static and animated maps, save maps in common image formats (TIF, BMP, JPG, PNG, etc). MapCreator also provides a tool to add/edit routes.
- MapBox ([tutorial](#)) - <https://www.mapbox.com>
- [MapMe.com](#) - Create personal (private) or community (published) maps to highlight travel, recreational opportunities, or anything at all!
- MapTime - Learning to design maps, for novices and experts - started by GT alumna Beth Schecter <http://maptime.io>
- [Mapbox](#) - "Mapbox is the location data platform for mobile and web applications. We provide building blocks to add location features like maps, search, and navigation into any experience you create." Open source where possible, free and fee service levels available.
- Neatline ([tutorial](#)) - Overlay your own map images with text and additional images. Built on top of Omeka (see "Archives," below). <http://neatline.org>
- [Open Heat Map](#) - Upload data and display on map - [documentation](#) provided
- QGIS ([tutorial](#)) - The free and open source answer to ArcGIS. <http://www.qgis.org/>
- [Tableau Public](#) - Create maps and other types of data charts; free download, link to training materials.

Examples

- ClevelandHistorical.org

Recommended Reading

- [The Spatial Turn](#) (conceptual overview of spatial analysis, with examples)
- [GIS Analysis and Critical Issues](#) (conceptual overview, with examples and sample classroom exercises)
- [Mapping](#) (a curated collection of classroom and pedagogical artifacts)

4.9 Network Analysis and Visualization

Recommended Tools

- Gephi ([tutorial](#))
Network graph visualization platform.
<https://gephi.org/>
- NodeXL
Create network visualizations from Excel spreadsheets.
<https://nodexl.codeplex.com/>
- Cytoscape ([tutorial](#); [another](#))
A flexible tool for creating network visualizations.
<http://www.cytoscape.org/>

Recommended Reading

- [Network Analysis](#) (conceptual overview with examples and classroom exercises)
- [Demystifying Networks](#) (conceptual overview)

4.10 Physical Computing

- [W3Schools](#)
W3Schools is a web developer learning and reference site, providing a wide variety of courses aimed at teaching web development skills and best practices. These lessons are free to use.
- [Lynda.com](#)
For a low-monthly cost you can have access to high-quality instructional videos on a wide range of technological topics at all skill levels.
- [CodeSchool](#)
Looking to learn some basic coding skills? CodeSchool offers engaging courses in HTML/CSS, Javascript, Ruby, and iOS development.
- [Skillshare](#)
Skillshare offers a range of online courses and tutorials ranging from basic to advanced web development and technologies to graphic design and digital video production.
- [SmartScholar - Computer Science Education Research Guide](#)
This guide contains great introductory resources, practical coding resources, study resources, and lists of podcasts and blogs.
- [Hour of Code](#)
A basic coding introduction for all ages and skill levels.
- [A Programmer's Guide to Data Mining](#)
A guide to using Python coding in relation to data mining.

4.11 Text Analysis and Visualization

Recommended Tools

- Voyant Tools ([tutorial](#))
A web-based platform for text analysis.
<http://voyant-tools.org/>
- Jigsaw
Software for exploring and visualizing large document collections, developed by Prof. John Stasko (Interactive Computing).
<http://www.cc.gatech.edu/gvu/ii/jigsaw/>
- Google Ngram Viewer
Search and visualize word frequencies over time.
<https://books.google.com/ngrams>
- HathiTrust Bookworm
Search and visualize word frequencies over time.
<https://bookworm.htrc.illinois.edu/>
- AntConc
<http://www.laurenceanthony.net/software/antconc/>
- Tutorials for more advanced tools can be found [here](#).

Recommended Reading

- [Data Mining and Text Analysis](#) (conceptual overview with examples and classroom exercises)
- [Distant Reading and Cultural Analytics](#) (conceptual overview with examples and classroom exercises)
- [Text Analysis](#) (conceptual overview with examples)
- [Text Analysis](#) (a curated collection of classroom and pedagogical artifacts)
- Ben Schmidt's [handouts](#) on various forms of text analysis.
- [Seven Ways Humanists Are Using Computers to Understand Text](#)

4.12 Timelines

Recommended Tools

- TimelineJS
A flexible tool for building media-rich timelines.
<https://timeline.knightlab.com/>
- Neatline ([tutorial](#))
Create visually-rich timelines; create narrative paths over images. Built on top of Omeka (see "Archives," below).
<http://neatline.org>

4.13 Twitter Bots

- Bot Wiki
A good place to start
<https://botwiki.org/>
- List of Tutorials at Bot Wiki
<https://botwiki.org/tutorials/twitterbots/>

- Cheap Bots Done Quick
<http://cheapbotsdonequick.com>

4.14 Virtual Reality

Recommended Tools

- Argon (created at Georgia Tech)
<http://argon.gatech.edu>
- Unity (tutorial)
<https://unity3d.com/>
- iOS AR
 - Apple iOS AR kit: <https://developer.apple.com/arkit/>
 - Apple AR kit tutorials: <https://appcoda.com/tutorials/ios/>

Recommended Reading

- Janet Murray on the [Future of AR/AR in Action Panel](#)

4.16 Wireframing & Prototyping

About

A website wireframe, also known as a page schematic or screen blueprint, is a visual guide that represents the skeletal framework of a website. Wireframes are created for the purpose of arranging elements to best accomplish a particular purpose. Wireframing is part of the user center-designed process. It can be useful to mockup what a website or app interface will look like and how users will interact with it before you jump into developing it. This way you can work out any usability, layout or information flow issues. It is cheaper and quicker to update a wireframe mockup than it is to update deployed code. After mocking up static pages it can be useful to link them together in an interactive prototype so you can test the flow between pages.

Recommended Resources

- Wireframing & Prototype Basics: <https://webdesign.tutsplus.com/articles/a-beginners-guide-to-wireframing--webdesign-7399>

Recommended Tools

- Mac only
 - Sketch: <https://www.sketchapp.com/>
 - free trial

- student 50% discount
 - industry standard
 - only handles static mockups
- All platforms
 - Adobe XD: <http://www.adobe.com/products/xd.html>
 - Included in Creative Cloud Subscription
 - Handles static mockups and interactions
 - Invision: <https://www.invisionapp.com/>
 - Free
 - Handles linking of pages together
 - Balsamiq: <https://balsamiq.com/>
 - Trial
 - Student license
 - static mockups with pre-existing components

4.17 Posters Presentations

- Poster presentation resources and workshop archives compiled by the Undergraduate Research Opportunities Program
- <http://www.undergradresearch.gatech.edu/presentation-tips>

4.18 Oral Histories

- [Principles and Best Practices](#)
- [Oral Histories. The Art of Interviewing by David Russell](#)

4.19 Copyright and Fair Use

- [Stanford Copyright Renewal Database](#)
Lets you search for whether a work is still under copyright or not.
- [Center for Media & Social Impact's Fair Use Resources](#)
A clearinghouse for fair use information, including well-researched and industry-endorsed Best Practices guides for Documentary & Web Videos, as well as teaching materials, FAQs, and more. Developed by American University.
- [U.S. Copyright Office Fair Use Index](#)
Searchable summaries of approximately 170 fair use cases in U.S. courts, updated and maintained by the US Copyright Office.
- [Best Practices for Attribution](#)
A guide for how to credit Creative Commons resources.

5 Campus Resources

5.1 Visualizing Data

5.1.a GT's Data Visualization GitHub

- <https://github.com/GTLibraryDataVisualization>
- Contains library guides to walk you through resources

5.1.b Data Visualization Lab

Location and Hours

- Located on the Third Floor of Crosland Tower
- Open 9 a.m. to 7 p.m., Monday Through Friday

Services

The lab hosts a number of classes and workshops, and the calendar is available on the lab's website: library.gatech.edu/vizlab. Software Available:

- Tableau
- ArcGIS
- SAS
- RStudio
- QGIS
- Google Earth
- Python
- Jupyter Notebook
- Adobe Photoshop
- Irfanview
- VLC
- ANSYS V19.1

5.2 Multimedia and Makerspaces

5.2.a The Digital Integrative Liberal Arts Center (DILAC)

About

The Digital Integrative Liberal Arts Center (DILAC) promotes new forms of humanistic inquiry through practices of design. Through interdisciplinary projects in research, teaching, and community engagement, we are exploring how emerging forms of digital media and applied digital scholarship can be used to construct arguments, create artifacts, and prototype systems that address the reconfiguration of knowledge and social structures in the digital age.

Location and Hours

- We are located in room 318 of Skiles Classroom Building, in a makerspace built to encourage individual work, discussion, critique, and collaboration.
- The lab requires buzzcard access but is generally staffed and available for walk-in visits, brief tours, or questions between 9:30-5 each day with a few exceptions.
- Website: dilac.iac.gatech.edu

Services

We are staffed for regular business hours and happy to assist you in developing project ideas, using our equipment, or anything else you might need. We have a wide array of cutting-edge equipment, including:

- GoPros
- Arduinos
- All major VR platforms
- Plotter for poster printing
- Large screens for visualization printer
- Powerful computers for high-level digital work
- 3D printers
- Check out the ([full list of equipment](#))

5.2.b Equipment Lending (Gadgets)

About

Gadgets are purchased with Tech Fee funding. All items are available for checkout at the Library Store and/or the gadget check-out desk on the 3rd floor of Crosland. Loan periods vary from 4 hours to 2 days, depending on the item. High-demand items, like camcorders and cameras, may be subject to wait lists.

Location and Hours

Please place any [online request](#) at least 48 hours in advance. Submission of a request does not guarantee availability.

Services

Available gadgets include:

- Cameras
- Camcorders
- GoPros
- Laptops
- Tablets
- eReaders
- Wireless mic systems
- Label and handheld mics
- Shotgun mics
- Audio field recorders
- Headphones
- VR Headsets
- External drives
- Multi-card readers
- Portable scanners
- Wireless presenters
- DVD players
- Graphics tablets
- Projectors
- Graphing calculators
- Cables

5.2.c The Interdisciplinary Design Commons

About

The Interdisciplinary Design Commons (IDC) is a 15,000-square-foot, state-of-the-art makerspace that is located in the rotunda of the Van Leer Building, right in the heart of Georgia Tech's campus. Catering specifically to electronics and computer engineering design and innovation, it represents the largest makerspace of its kind in the nation. The IDC offers students of all majors a hands-on learning environment where they can work together to solve technology design challenges. The space features a woodshop, 3D printers, laser cutters, a plasma cutter, function generators, power supplies, soldering irons, computers, and embedded systems equipment.

Location and Hours

- Located on Third Floor of Crosland Tower
- Open 12 p.m. to 6 p.m., Monday Through Friday
- Staffed by The Hive--a multi-disciplinary student organization that staffs the IDC

Services

The IDC (Interdisciplinary Design Commons) is a space where ideas, innovation, and creativity come to life. All Georgia Tech students, regardless of year or major, are allowed to come inside and utilize the three floor makerspace, free of charge. The Hive staffs the IDC with volunteer PIs (Peer Instructors), who aid students in using the equipment and help them safely accomplish their goals. The IDC is located at the heart of campus, right between the Van Leer building and Tech Green.

5.2.d The Invention Studio

About

Whether it's for research, personal or academic usage, we support ALL students, staff, and faculty in their desire to build the project of their dreams. Our tools are 100% free to use. See you soon!

Location and Hours

- 2nd Floor MRDC
- Hours vary by semester
- Website: inventionstudio.gatech.edu

Services

- We've supported the DIY mentality and hands-on education of Georgia Tech since our humble beginnings in 2009. We empower students, staff and faculty to build, tinker, and hack their way to a brighter future.
- Prototyping: Our Prototyping Instructors are students from all majors and backgrounds who volunteer at least 3 hours a week to repair the equipment, organize events, and teach any visitors who utilize the space.

5.2.e The Multimedia Studio

About

The Multimedia Studio is an open computer lab providing access to Multimedia software from the Adobe Creative Suite to Final Cut Pro and Pro Tools. The lab is staffed by student experts and also provides services and support for large format printing.

Location and Hours

The Multimedia Studio is on the 4th floor of Crosland Tower. Hours vary by semester:
<https://www.library.gatech.edu/multimedia-studio>

Services

The Multimedia Studio is equipped with 13 Mac Mini's with dual 24-inch displays, and two Windows all-in-one workstations with a 27-inch primary and 24-inch secondary displays.

The studio also includes one standard sized flatbed scanner and one sheet fed scanner capable of scanning 50 sheets at once, and 2 large-format plotters (for posters) capable of printing in 24-inch, 36-inch and 48-inch widths of any length. The cost is by linear foot: \$2.50 for 24 inches, \$2.75 for 36 inches and \$3 for 42 inches.

Additionally, the studio has one color and black-and-white printer.

The Multimedia Studio is staffed by user assistants available to help with any software or hardware questions in the lab. In addition to one-on-one support, there are a number of training opportunities available, including Library classes on various multimedia software and comprehensive online training videos offered by [Lynda](#).

5.2.f The Beck Multipurpose Room

About

The Beck Room is designed to accommodate professional audio recording projects. This room is equipped with an Mbox Pro audio interface, Yamaha HS80M reference speakers, acoustical paneling, Mondopad touchscreen teleconferencing system.

Location and Hours

The Beck Multipurpose room is temporarily located in the Communication Center in the Clough building until 2020.

Please contact the [Communication Center](#) to reserve this space during their hours.

5.3 Campus Printing

5.3.a The Multimedia Studio

About

The Multimedia Studio is an open computer lab providing access to Multimedia software from the Adobe Creative Suite to Final Cut Pro and Pro Tools. The lab is staffed by student experts and also provides services and support for large format printing.

Location and Hours

- The Multimedia Studio is on the 4th floor of Crosland Tower.
- Hours vary by semester
- Website: library.gatech.edu/multimedia-studio

Services

The Multimedia Studio is equipped with 13 Mac Mini's with dual 24-inch displays, and two Windows all-in-one workstations with a 27-inch primary and 24-inch secondary displays.

The studio also includes one standard sized flatbed scanner and one sheet fed scanner capable of scanning 50 sheets at once, and 2 large-format plotters (for posters) capable of printing in 24-inch, 36-inch and 48-inch widths of any length. The cost is by linear foot: \$2.50 for 24 inches, \$2.75 for 36 inches and \$3 for 42 inches.

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5.3.a Paper & Clay

About

Make art and meet people at Paper & Clay, Georgia Tech's on campus creative studio! Paper & Clay features pottery, ceramic glazing, and other art activities, as well as poster and banner printing. We even have an Inspiration Area where you can explore small crafts and connect with other creatives. The many classes and workshops offered throughout the year are a great way to hone your skills and engage your right brain. This artistic environment is a great rental space for your next departmental gatherings, student organization events, or craft session with friends.

Location and Hours

- Located on the Third Floor of the Georgia Tech Student Center.

- Monday – Thursday: 10:00 am - 9:00 pm
- Friday – Sunday: 12:00 pm - 6:00 pm
- Website: studentcenter.gatech.edu/paper-clay

Services

- Workshops
 - All workshops are FREE and offered by our student team. Past workshops include henna tattoo art, block printing, candle making, metal stamping, and more.
- Classes
 - If you are looking to sharpen your art skills, consider one of the many classes taught in Paper & Clay by skilled artisans from the campus community. Classes include sewing basics, advanced sewing projects, pottery wheel techniques, stained glass, and more.
- Printing
 - Paper & Clay has a wide variety of sizes to print your posters. The most popular sizes are 22"x28" and 20"x30". See their website for more information on pricing.

5.4 Georgia Tech Archives

5.4.a Archives Reading Room

Location and Hours

The [Archives Reading Room](#) is located on the 1st floor of Crosland Tower.

The Georgia Tech Archives materials are offsite and must be requested at least 24 hours in advance. Materials are pulled Monday - Friday only (requests made after 3:00pm on Friday will be available on Monday). In the case of inclement weather, deliveries may be delayed. If this situation occurs, all researchers will be notified.

Website: library.gatech.edu/using-the-archives

5.4.b Architectural Design Collection

About

Architectural records in the Georgia Tech Archives contain materials related to architectural design in the southeast. This collection holds the work of Georgia Tech alumni and faculty, such as Francis Palmer Smith and Joseph Amisano, and well-known architects like Neel Reid.

Services

- Discovery Tools
 - [Collection Descriptions](#)

- [Digital Portal](#)
 - [SMARTech](#)
 - [GT Publication Index](#)
 - [GT Library Catalog](#)
 - [Web Archives](#)
- Citing
 - When citing a source, it is important to acknowledge the collection name, the name of the repository, and the name of the institution
 - For example: Robert Lee Dodd Photograph Collection, VAM022) Archives and Special Collections, Library, Georgia Institute of Technology.

5.4.c Georgia Tech History Collection

About

The Institutional Archives documents Georgia Tech's origins, history, and development. The collections evidence the traditions and creative output of Georgia Tech faculty, staff, students, and alumni. Collections in this archive contain the records of Georgia Tech's administrative offices, educational programs, standing bodies of the faculty and staff, extracurricular organizations, and more.

Location and Hours

The Georgia Tech Archives materials are offsite and must be requested at least 24 hours in advance. Materials are pulled Monday - Friday only (requests made after 3:00pm on Friday will be available on Monday). In the case of inclement weather, deliveries may be delayed. If this situation occurs, all researchers will be notified.

- Website: library.gatech.edu/using-the-archives

Services

- Discovery Tools
 - [Collection Descriptions](#)
 - [Digital Portal](#)
 - [SMARTech](#)
 - [GT Publication Index](#)
 - [GT Library Catalog](#)
 - [Web Archives](#)
- Citing
 - When citing a source, it is important to acknowledge the collection name, the name of the repository, and the name of the institution
 - For example: Robert Lee Dodd Photograph Collection, VAM022) Archives and Special Collections, Library, Georgia Institute of Technology.

Services

The Institutional Archives documents Georgia Tech's origins, history, and development. The collections evidence the traditions and creative output of Georgia Tech faculty, staff, students, and alumni. Collections in this archive contain the records of Georgia Tech's administrative offices, educational programs, standing bodies of the faculty and staff, extracurricular organizations, and more.

5.4.d The Rare Books Collection

About

The Georgia Tech Archives is the steward for the Library's rare book collections which focuses on the history of science, math, architecture, and technology. With special strength in Newtoniana, the library owns a copy of each of the first three editions of the Principia Mathematica (1687, 1713, and 1726). One of the library's most beautiful treasures is the nine-volume Dutch language edition of Joan Blaeu's Grooten Atlas (or Grand Atlas), published in the 1660s. Other collecting areas include mathematics, particularly probability, sciences, technology and architecture.

5.4.e retroTECH

About

retroTECH is a Georgia Tech Library program in which the campus community can create the future by exploring the past. With the emerging retroTECH Lab as a home base, students, faculty, staff, alumni, researchers, and community partners engage in hands-on research, DIY peer-to-peer digital archiving, experiential learning, and outreach around the evolution of technology.

retroTECH invites the Georgia Tech campus community to create the future by exploring and preserving our technological pasts. Through retroTECH, scholars and educators engage in experiential learning, hands-on research and development, and community building around how our lives shape technology -- and how technology shapes our lives -- over time.

The vision of retroTECH is to inspire a culture of long-term thinking, ongoing access to technological heritage, peer-to-peer discovery, and individual empowerment.

Location and Hours

- Located on Third Floor of Crosland Tower
- Hours vary per semester
- Website: library.gatech.edu/retrotech

Services

- Research and Teaching
- Outreach and Partnerships
- Peer-to-Peer Digital Archiving
- Donations, Showcases, and Ideas

5.4.f The Science-Fiction Lounge

About

A visit to the Science Fiction Lounge showcases a fantastic variety of science fiction: works of feminist and global science fiction; science fiction art; classic works of the Golden Age, New Wave and Contemporary science fiction movements; Afrofuturism; award-winning books and short stories; collections of Star Trek and Star Wars novels; and a variety of secondary and reference works related to science fiction studies. The original circulating science fiction collection was formed from the personal collection of Georgia Tech literature professor Irving "Bud" Foote, who donated his science fiction book and magazine collection to the Library in 1998.

Location and Hours

- Located on First Floor of Crosland Tower
- The lounge is open whenever the library is open
- Website: library.gatech.edu/scifi-lounge

Services

The Georgia Tech Science Fiction Collection is one of the largest science fiction collections in the United States. The collection has over 10,000 science fiction and fantasy novels, anthologies, and more than 1,000 magazines. The Georgia Tech Science Fiction Collection also contains records documenting the fandom of the science fiction, fantasy, comic, and affiliated genres.

Helpful Links

- [Sci Fi @ Tech](#)
- [Texas A&M Science Fiction & Fantasy Research Database](#)
- [Encyclopedia of Science Fiction](#)
- [Internet Speculative Fiction Database](#)
- [Science Fiction Research Association](#)
- [Science Fiction & Fantasy Writers of America](#)

5.4.g Textile Industry Records Collection

About

Collection of textile mill industry materials in the southeast, which document the religious, social, and economic issues of nineteenth and twentieth century mills, particularly in Atlanta. This collecting area illustrates the historical connection the textile industry has to Georgia Tech with the development of the Textile Engineering program in 1897 to the current School of Materials Science Engineering.

Location and Hours

The Georgia Tech Archives materials are offsite and must be requested at least 24 hours in advance. Materials are pulled Monday - Friday only (requests made after 3:00pm on Friday will be available on Monday). In the case of inclement weather, deliveries may be delayed. If this situation occurs, all researchers will be notified.

- Crosland Tower
- Website: library.gatech.edu/using-the-archives

Services

- Discovery Tools
 - [Collection Descriptions](#)
 - [Digital Portal](#)
 - [SMARTech](#)
 - [GT Publication Index](#)
 - [GT Library Catalog](#)
 - [Web Archives](#)
- Citing
 - When citing a source, it is important to acknowledge the collection name, the name of the repository, and the name of the institution
 - For example: Robert Lee Dodd Photograph Collection, VAM022) Archives and Special Collections, Library, Georgia Institute of Technology.

5.5 Crosland Tower Study Spaces & Lockers

The Georgia Tech Library features options for both collaborative work and quiet study throughout the building. Please note the sixth and seventh floors are quiet work spaces.

5.5.a The Grove Level

Location and Hours

The Grove Level is located on the bottom floor of Crosland Tower and is open 24/7.

Services

The Grove Level features a new book reading room and various collaborative spaces. Feel free to sit down, spread out, and use the available power and data ports to kick off your study session.

5.5.b The Innovation & Ideation Studio

Location and Hours

The Innovation & Ideation Studio is on the 2nd floor of Crosland Tower. You can use the studio whenever the library is open.

Services

Innovation & Ideation Studio is low-tech studio environment is perfect for creative, messy brainstorming, in a group or by yourself. The large tables, work stools, and whiteboards are waiting for you to make a space where your ideas can take shape.

You can make noise, build models, and let your imagination run free. We hope you'll use the Studio for any scholarly project that involves material practices like making, drawing, and building. We'll provide some arts and crafts supplies if you want to make a useful mess.

The Studio is perfect for groups that need room to work on large-scale documents or models, interdisciplinary teams looking for a project space, or anyone hoping for an informal design space.

5.5.c Storage Lockers

Short term lockers are located on the 2nd and 3rd floors, with a four hour check out period. These lockers are self-service, with students able to set their own passcodes.

Long term lockers are located on the 4th and 6th floors. These lockers have a semester long checkout period. Please fill out the [Locker Request](#) form.

5.5.d Quiet Reading Rooms

Location and Hours

The sixth and seventh floors of the Library feature large, open study spaces kept quiet 24 hours a day.

Services

They are available to anyone and feature ample power, data and a breathtaking view of Georgia Tech's campus and most of midtown Atlanta.

5.5.e Breakout Rooms

Location and Hours

Nearly every floor of the Library boasts instantly reservable collaboration rooms for group study.

Services

These are booked through EMS, the Institute's reservation system: <https://www.library.gatech.edu/spaces>

5.5.f ADAPTS (Accessible Study Rooms)

Location and Hours

There is a wheelchair-accessible study room available on the 2nd floor of Crosland Tower (room 2189, near the open-air bridge). Please ask in the [Library Store](#) (Grove level) if you need assistance in reserving/utilizing/locating the room.

Services

The room is equipped with a PC with a DVD/CD-RW drive and USB ports. Please bring a USB flash drive to save your data.

The following software has been loaded on the machine:

- Windows 10 Ent 2016 LTSC (Operating System)
- Inspiration 8
- Adobe Acrobat DC
- Internet Explorer
- Mozilla Firefox
- Adobe Flash Player
- Java Runtime
- Quicktime Player
- Blue Jeans
- Microsoft Office 2016 Professional Plus

5.6 General Academic Help

5.6.a Center for Academic Success

Location and Hours

- The Center for Academic Success is located on the second floor of the G. Wayne Clough Undergraduate Learning Commons (Clough Commons).
- Online scheduling is available for academic coaching, tutoring, and success workshops: <http://www.success.gatech.edu/about/location>

Services

The mission of the Center for Academic Success is to support undergraduate students in achieving their academic goals through a range of both personalized and campus-wide initiatives that foster self-regulated learning, enhance academic skills, and create opportunities for leadership and continued development within and beyond Georgia Tech's rigorous environment. To accomplish this mission, we:

- Implement diverse types of course-related academic support, such as peer tutoring, supplemental instruction, and collaborative study groups.
- Assist students in the transition to college-level work and the academic environment of Georgia Tech.
- Identify and support students who are in academic distress or who are not meeting their own academic expectations.
- Collaborate and partner with faculty, advisors, and administrators to coordinate a campus-wide network of academic support.
- Support the operation and vision of Clough Commons to enhance undergraduate teaching and learning.
- Foster a sense of community among students through shared learning experiences.
- Provide leadership, professional development, and mentoring opportunities for undergraduates interested in helping their fellow students.