MS Student Handbook

School of Literature, Media, and Communications

Ivan Allen College of Liberal Arts

Georgia Institute of Technology

Program Information:

http://dm.lmc.gatech.edu

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Program Description

Georgia Tech's Digital Media (DM) Masters Program is helping to establish the standard for professional education in digital media and to raise the level of professional practice. It is aimed at providing a principle-based education that will guide its graduates over the course of their careers in a rapidly changing technical environment. The program focuses on making with computational media in "expressive media" and "civic media" with a

focus on incorporating theory and history with the making of computational artifacts. Students are expected to participate in both of these areas but ultimately focus on one for their final project or thesis.

DM students follow a studio and seminar-based curriculum that places digital design within technical, cultural, aesthetic, and historical contexts. The program rests on the assumption that digital media belongs to a historical, aesthetic, and conceptual continuum, whose legacy and future must be addressed in order to understand the digital artifact in its own right.

Because of its technical and disciplinary diversity, the DM program can offer students both the practical skills and the theoretical foundations they need to assume leadership roles as designers, producers, and critical analysts of digital media. Graduates of the program pursue careers in UX, design, commerce, entertainment, art, and education, with a variety of national and international organizations. Some go on to Ph.D. work in computer science or the humanities. Some have gone on to start their own businesses.

The DM program usually enrolls 15-20 full-time students each Fall Semester. DM students come from a range of educational backgrounds and have diverse intellectual and creative objectives. Many have significant work experience in a professional field. Students come with academic backgrounds from such fields as acting, anthropology, architecture, communications, computer science, engineering, English studies, graphic design, history, journalism, law, library science, management, marketing, philosophy, social work, software development, technical writing, and television production. The program welcomes a socially diverse and international student body.

Among the recent corporate partners of the program who have provided internships or participated as research partners are: CityLife, The Coca-Cola Company, International Hotel Group, State Farm, Cox Communications, Moxie, Philips HealthCare, Porsche,

Esri, Adobe, Turner, Cartoon Network, Ebay, GoPro. Non-profit partners include GPTV, WABE, the High Museum, the Museum of Modern Art (NYC), National Academy of Television Arts and Sciences, Bremen Jewish Heritage Museum, Center for Civil and Human Rights, Georgia Tech.

For More Information

Regent's Professor Brian Magerko
Director of Graduate
Studies, School of Literature, Media, and Communication
magerko@gatech.edu

Driani Gambrell
Associate Director
Graduate Studies, School of Literature, Media, and Communication
dgambrell30@gatech.edu

Tuition and Financial Aid

Tuition and Fees

Annual tuition and fees are listed in the Georgia Tech catalog or the Office of the Bursar website at: https://www.bursar.gatech.edu/node/1 Please note that though some students receive assistantships that cover tuition costs, all students are responsible for the fees, which are substantial, and due each semester.

Graduate Assistantships and Other Funding

The DM program offers a limited number of graduate research, instructional, and laboratory Assistantships for Masters students. As an assistant, each student works 13 hours a week throughout the semester (4.5 months) and earns a stipend of $1270 per month.

Assistantships are assigned on a semester-by-semester basis. Assistantships include remission of all tuition, but students are required to pay student fees each semester. Assistantships involve a set number of hours of work per week throughout the semester. As stated above, most MS Assistantships are for 13 hours or 1/3 time.

Students with strong production, programming, and/or design skills are more likely to receive Assistantships. Students should actively visit professors in the program and contact the Director of Graduate Studies (DGS) and the Associate Director to improve their chances of finding appropriate work. Current students should also be assertive in

reminding the DGS and other professors in the program of their talents and interest in an Assistantship. In the past most students who have actively sought Assistantships have

been able to find one. However, this is more common in the second year than in the first

year. Many assistantships require technical skills for use on research projects or to support campus organizations (HTML5, JavaScript, Java, C/C++, etc.), although many different types of assistantships are available. Unfortunately, there is no central repository of campus positions.

Students may also participate in the Georgia Tech Graduate Co-Op Program, which allows students to earn pay from a job in the commercial sector while enjoying partial credit toward full-time enrollment status. More information about the program can be found at career.gatech.edu/co-op. For more information on fellowships and loans please visit finaid.gatech.edu.

Special Instructions for International Students

Before international students may be granted an I-20 visa, they are required to provide evidence of independent financial support to cover the cost of attendance for the first year at Georgia Tech. *Cost of attendance* includes tuition, room/board, and books. The amount that must be verified is set by the Graduate College at Georgia Tech and varies slightly on an annual basis to reflect changes in tuition, room/board, and fees. *Please see https://www.bursar.gatech.edu/tuition-fees for updated costs of attendance*. Upon acceptance into the program, international students of the amount of the financial resources they must document to receive the I-20 visa. Students are required to provide a bank statement (in English) documenting that the funds are registered in the student's name, or in the name of a parent or guardian. *No visa can be granted without the official documentation of required funds*. **To avoid delay, students should review financial documentation requirements found on OIE's Financial Document Requirements website (**https://isss.oie.gatech.edu/content/financial-document-requirements**).**

More information can be found on the Office of International Education website: https://isss.oie.gatech.edu/welcome-series.

Facilities

Digital Media Learning and Research Labs

The DM Program has dedicated learning and research labs on the third floor of the Skiles Classroom Building. The Program also has offices, workspaces, and labs in the Technology Square Research Building (TSRB) on the third floor. This is where the majority of DM faculty offices are located, and most Ph.D. students have their desks. The DM computer labs offer an extensive range of equipment for digital media production in hard- and software as well as for analysis and evaluation. Different research groups work under DM faculty guidance and usually provide specialized approaches and equipment ranging from hardware prototyping equipment to interactive television technologies and a dedicated game lab. Although each DM student is allocated personal storage space on the common LMC server, DM students are encouraged to keep personal backups.

DM provides a limited number of video cameras for use in class, but students interested in doing extensive original video work are encouraged to purchase their own cameras.

Digital Media Masters Program Lab

The Masters program has a dedicated lab on the third floor of Skiles Classroom Building including a lab of roughly 18 shared workstations, both Mac and PC with a complete suite of digital media software.

Digital Media as Part of the Institute for People and Technology (IPAT) and GVU Research Center

The DM program participates in IPAT and the GVU Center, interdisciplinary research entities at Georgia Tech that brings together people and expertise from all six Georgia Tech colleges in order to solve complex problems related to people and technology.
IPAT/GVU offers DM students access to a computing hardware lending library on the first floor of TSRB. DM faculty regularly collaborates with faculty from other Georgia Tech colleges within IPAT and GVU, as well as beyond.

All DM students are invited to take part in IPAT events and to attend the weekly "Brown Bag" Thursday lunches, in which IPAT members report on their research. Brown Bag Lunch can be taken as a one-credit course. Past IPAT / GVU Brown Bag events and detailed GVU information can be found at https://gvu.gatech.ed.

IPAT/GVU also provide limited travel funds for graduate students, and DM PhD students are eligible to apply for such funds.

As additional lab space, the GVU provides its own prototyping lab equipped with 3D printer, 3D scanner, laser cutter, and other tools and equipment available for research projects. More information on the Prototyping lab can be found on the GVU prototyping lab website: https://protolab.gvu.gatech.edu/faqs.

The Georgia Tech Library

The Georgia Tech Online Library provides access to the holdings in Georgia Tech's library, other library catalogs, and selected commercial databases. Students can access this information from one of the dedicated terminals in the library or from a remote location. The library catalog can also be accessed through the library's website at library.gatech.edu.

Program Requirements

MS in Digital Media Curriculum and Course of Study

To graduate with the Master of Science in Digital Media, students must take a minimum of 36 credit hours while meeting the following requirements:

Required Coursework

5 required courses, totaling 15 hours:

Fall semester of first year

LMC 6310 The Computer as an Expressive Medium (3 credits) LMC 6399 Discovery and Invention in Digital Media (3 credits)

Spring semester of first year

LMC 6313 Principles of Interaction Design (3 credits)

Fall and/or Spring

LMC 6650 Project Studio (6 credits; taken at least twice)

This course offers students the opportunity to work on focused research. Students may repeat the same Project Studio for all four semesters and do their Masters Project/Thesis in a related area. All MS students are required to take two (2) sections of 6650, each for 3 credits. **5 additional courses, totaling 15 hours**

Students may choose from elective courses in DM or related disciplines, such as Architecture, Industrial Design, Cognitive Science, Computing, Management, or Policy Studies. If a student chooses to take more than three elective courses outside DM, the student must obtain approval from the Director of Graduate Studies.

6 hours of Master's Project or Masters Thesis

All students will take 6 credits of either Project (LMC 6800) or Thesis (LMC 7000) work. Three of these credit hours are assigned to the third term and three to the fourth.

Summer Internship

8-10 week full-time non-credit internship between the first and second year.

Course Load Requirements

Although the Institute sets the minimum course load for part-time students at 3 hours per term, **the DM program does not enroll part-time students.** Students with GRAs, fellowships, tuition waivers, or student visas, and students assigned to the Institute by the armed forces for the purpose of pursuing a degree, are required to be enrolled for a minimum of **12 credit hours (9** of which must be a letter grade or Pass/Fail) per term.

Graduate Research Assistants (GRAs) typically enroll in LMC 8998 for 3 hours of audit credit to remain full-time. **LMC 8998 and LMC 8997 do not count toward the 36 credits required for the degree.**

Waivers of Core Courses & Policy on Transfer Credits

Students may have had courses they feel are quite like the core courses. A waiver from a required LMC course may be granted when the student can provide evidence of comparable course content (syllabi) and performance (transcripts) that satisfies the Director of Graduate Studies.

Students may also request substitution of another Georgia Tech graduate course in the case ofspecialty interests. **The waiver of core courses does not change the requirement of 36 credits of DM graduate work. Credits taken at other institutions is not accepted for transfer credit toward the DM degree.**

RCR Requirement

Since Fall 2014, Georgia Tech has required all masters' students who enroll in 7000 level thesis hours to complete Responsible Conduct of Research (RCR) training. RCR encourages researchers to reflect on the ethical and legal issues related to their work. RCR covers topic areas such as conflicts of interest, data management, research misconduct, and the ethical obligations that researchers have to society. RCR can also include issues such as whether researchers should publish information about their work if that information could potentially be manipulated to cause harm.

In accordance with the new policy, master's thesis students must successfully complete at least one type of RCR training. The options are either: (1) an online RCR course offered by the Collaborative Institutional Training Initiative (CITI) Program OR (2) a for-credit course that has been approved to satisfy the RCR training requirement. Find more information about both options at https://rcr.gatech.edu/masters-policy.

Internship Requirement

All students are required to complete an internship of full-time work for 8-10 weeks during the summer between Year One and Year Two of the DM program. When new internships become available, information is posted to the DM student email list. In addition, DM students are eligible to participate in Georgia Tech's Graduate Co-Op Program, which helps identifying possible internship. DM students have had internships at companies like DirectTV, Google, Yahoo, IBM, Coca-Cola, CNN, BellSouth, Electronic Arts, Motorola, and Microsoft, as well as many cultural institutions. The ultimate responsibility for finding and securing an internship rest with the individual student. Second year MS students report on their internships in short slide presentations at a special meeting held during the first week of the fall semester. First year students are invited to attend this meeting to learn how to pursue internships.

Students can work part-time as a Grad Intern and keep their GRA/TA position, only if the internship is essential to their research. Students must consult with their Faculty Advisor and the DGS for approval.

Graduate International Internship requirements and guidelines can be found on the Career Center webpage https://career.gatech.edu/application-process-and-deadlines-for-graduate-internships/.

Guidelines for the Graduate Internship Program can be found here https://career.gatech.edu/graduate-student/application-process.

Interactivity

DM students are eligible to participate in the Interactivity event organized by the MSHCI program, which sees numerous company partners visiting the campus and meeting students in a poster session: http://interactivity.cc.gatech.edu/.

Digital Media Coding Arts Summer Prep Course

The Coding Arts Summer prep course is required for all incoming Digital Media Graduate students. This free 3-week course will be offered asynchronous online. Students wishing to waive the bootcamp should submit a link to their portfolio to ADGS or DGS to be evaluated. Failure to enroll and participate in the course will lead to your Admission being deferred to the next Fall semester, or being waitlisted for both LMC 6310 and LMC 6650. The discretion and final decision will be determined by the Director of Graduate Studies (DGS) and the Associate Director of Graduate Studies (ADGS).

Portfolios must include the equivalent of an interactive webpage or application using JavaScript or an equivalent language. We do not encourage the use of twine unless it makes heavy use of programming.

The bootcamp typically covers these learning objectives:

1. how to analyze a coding problem and break it down into logical steps
2. introductory data structures (variables, arrays, objects)
3. introduction to conditionals and how and why they're used
4. introduction to loops and how and why they're used
5. introduction to functions and how and why they're used

HCI -DM Track Required Courses

MS-DM HCI students are required to complete a total of 12 (credit hours) to fulfil the MS -DM HCI specialization requirements. Students should consult with a designated advisor or the ADGS.

LMC 6310	The Computer as an Expressive Medium (3 credits)
LMC 6313	Principles of Interactive Design (3 credits)
LMC 6399	Discovery and Intervention in Design Media (3 credits)
Elective	*LMC Course

*****Students may fulfill the rest of the required 9 credits hours with any other LMC 6000 or 8000 level course.

A maximum of 3 hours of LCC 8903 Special Problems in HCI may count toward the Digital Media specialization. A minimum grade of "B" is required in each of the Digital Media Specialization classes.

DegreeWorks

Students can check their graduation status in DegreeWorks, under the section entitled Student View. For more information on DegreeWorks, please see https://degreeaudit.gatech.edu/.

Academic Performance and Academic Standing

Course Grades and Incompletes

The DM Masters Program will not accept for credit toward the degree any course in which a student receives a grade less than a letter grade of "B." Students receiving a "C" or below in Core Courses (LMC 6310, LMC 6313, LMC 6399, LMC 6650) must repeat the course or take an acceptable substitute with the guidance of their advisor and approval by the DGS. **Students receiving more than one grade of C or below may be asked to withdraw from the program.**

Credit for Georgia Tech Courses Outside the DM Program

In general, students are encouraged to take courses in closely related and overlapping subjects in the College of Computing, the Industrial Design Program of the College of Architecture, and the Center for Music Technology at Tech. It is best to check with your advisor or the DGS before taking a course outside LMC to be sure that it will be accepted for degree credit. Taking courses that are not considered to be closely related to DM studies may have a negative impact on a student's academic standing and result in loss of GRA support.

Undergraduate Courses Taken with Modification for Graduate Credit

In general, students interested in taking upper-level undergraduate courses in highly relevant subjects not offered within the graduate curriculum should see the instructor and the DGS to arrange to take a concurrent (jointly meeting) graduate level version of the course with different assignments and a graduate course number. When enrolling for a jointly meeting course that is listed in the catalog under both UG and G numbers, students should be sure to sign up for the Graduate version. Graduate courses have numbers of 6000 or above.

Students who have taken concurrent graduate/undergraduate courses while undergraduates at Georgia Tech must get permission of the DGS before enrolling for same course at the graduate level. In cases where the course varies widely in content from year to year or from instructor to instructor (such as courses in Experimental Media and Digital Art) it may be appropriate to repeat a course for credit.

Undergraduate Courses and Basic Skills Courses Not Credited toward the Degree

Students lacking in preparation may be required to take an undergraduate course for undergraduate credit, or a not-for-credit English as a Second Language course or other basic skills course in addition to their graduate course requirement. Such remedial courses will not count toward the degree and may or may not count toward full time status (check with DGS and Registrar to be sure).

Policy on Academic Performance and Incompletes

Students must maintain a minimum overall GPA of 3.0. Students who fall below that minimum GPA for two consecutive semesters are no longer in Good Standing and will

be subject to dismissal from the program.

Under Georgia Tech rules, the faculty of the School of LMC may assign a grade of "Incomplete" (I) only when a student has been unable to complete the requirements of a course by reason of illness, extensive travel, commitments to employers, and other unexpected and unavoidable situations over which the student had no control.

Grades of Incomplete can only be assigned to courses designated as letter grade. Pass/Fail courses must be completed by the end of the semester, or a failed grade will be issued. The student may work out an arrangement with the professor involved to complete the work in the following semester and have the grade changed. If the student has an Incomplete lasting more than one semester, the Registrar will automatically convert that Incomplete into a grade of "F" (without sending a warning).

The student must successfully complete at least 75% of the credits the student registers for, or the Registrar will automatically place the student on academic probation, and the student will not be eligible for financial aid. **Students who do not complete Incompletes and receive a letter grade of F will have that grade counted toward their GPA and will therefore be at risk for dismissal from the program**.

Expectations of Paid Graduate Assistants

Research and Teaching Assistantships are contracts for a specific number of hours of work under the supervision of a faculty member. Students are expected to meet weekly with the supervising faculty and to fulfill all assigned tasks in a timely manner. Most MS Assistantships are for 1/3 time or 13 hours a week for the duration of the semester (including finals week). Students may be asked by supervising faculty to account for the time with timesheets. It is acceptable to work extra hours one week and fewer hours the next, but the total should conform to 13 hours per week.

The scope of duties will be determined by the supervisor for the particular Assistantship. Students should never be asked to perform personal services of any kind for a faculty member or to apply Assistantship hours for any purpose other than their explicit research or teaching responsibilities, and any associated writing, technical support, or demonstration requirements.

Students who find they do not have the skills or are otherwise unable to perform their assigned tasks must make the situation known to their supervisor immediately. Students who receive Assistantships but do not perform assigned tasks in a conscientious and timely manner may be asked to repay the funds and will not receive further funding.

Students who have questions on the conduct of the GRA or are otherwise unhappy with the requirements of their Assistantship should feel free to talk to the DGS or LMC Chair if they are unable to reach an understanding with their supervisor.

Readmission Policy

Any student in Good Standing who is not enrolled for a single term will be allowed to re-enroll without applying for readmission to the Institute. There is no distinction between the terms of the regular academic year and the summer term. Students who are not enrolled (and not on "co-op at work" status) for TWO or more semesters, including the summer term, must apply for readmission.

A student who is on *Academic Warning* or *Probation* who is not enrolled for a single term will have an automatic hold placed on his/her registration which must be cleared by the student's major school.

Any student, except a part-time graduate student, who withdraws and wishes to return the following term, must complete a readmission application and a Faculty Petition. Parttime
graduate students are required to complete only a readmission application. The deadline for these documents is set by the Registrar's Office.

The **Application for Readmission form** is available in the Registrar's Office and must be submitted along with the required documentation by specific deadlines.

https://registrar.gatech.edu/info/readmission-policy .

Academic Standing in the Digital Media Program

Note that the DM Program's standards are in addition to the standards for *Good Academic Standing* at the Institute. To be in Good Academic Standing within the Digital Media MS Program students must:

1. Complete the internship requirement by the beginning of the Fall semester of the 2nd year
2. Take at least 3 academic (non-audit, graduate level, approved) courses per semester
3. If offered, complete the work of paid Research or Teaching Assistantship to the satisfaction of the supervisor
4. Complete all course work with a grade of B or higher
5. Complete all core courses by the end of the first year of study
6. Complete a successful Project or Thesis Proposal before entering the 2nd year of study
7. Not be in violation of the *Honor Code* or *Program Standards of Professional Conduct*
8. Demonstrate acceptable written and oral skills in English
9. Make clear and timely Progress to the Degree

Students who are not in *Good Academic Standing* within the DM Program will not be eligible for Assistantships and may be given a warning, put on probation, or dismissed from the program based on the decision of the DGS in consultation with the Graduate Faculty. Students placed on probation will be given one semester in which to remedy deficits in performance. Students may be dismissed without prior warning or probation. Students may appeal decisions to the DGS and the School Chair.

Honor Code and Professional Conduct

The Honor Code at Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards and to uphold the Institute Honor Code: policylibrary.gatech.edu/student-affairs/academic-honor-code.

Students who are found to be in violation of the *Honor Code* may be given a warning, placed on probation, or dismissed from the program. Examples of violation of the *Honor Code* include (but are not limited to) violations of copyright using Institute machines (e.g. illegal downloads), presenting the work of others as one's own, falsifying credits or

recommendations, & falsifying CV information or skill qualifications.

In addition, students who behave in ways that are inconsistent with professional responsibility or that impede the work of others will not be considered in good standing in the program and will be subject to warning, probation, or dismissal. Examples of unprofessional behavior include (but are not limited to) failure to perform assigned work for Assistantships, failure to keep research or advising appointments, carelessness or mishandling of program equipment, violation of security procedures that puts equipment or people at risk, disruptive behavior that impedes the work of

Others. Students who witness violations of the *Honor Code* or of *Professional Conduct* are asked to report them to the faculty and the Director of Graduate Studies.

Graduation Procedures

During the semester preceding the semester of anticipated graduation, the student must submit an online petition to graduate: **Instructions are as follows:**

1. Login to OSCAR
2. Select Student Services & Financial Aid
3. Select Student Records
4. Select Apply to Graduate
5. The first screen will prompt you to select a term. Select the current term, NOT the term in which you'd like to graduate. Later in the process you will be able to select the term you are planning to graduate.

Deadlines are posted at http://registrar.gatech.edu in the Registrar's Calendar.

In order to participate in commencement, the approved Thesis (for those who select the Thesis option) and all associated forms must be submitted by the date and time specified by Graduate Studies: grad.gatech.edu. All degree candidates are encouraged to submit their final work electronically. See the checklist of documents to be turned in to the Office of Graduate Studies at https://grad.gatech.edu/theses-dissertations .

Evaluation of the Final Project (for those who select the Project option) must be completed during the defense period designated by the Director of Graduate Studies.

The Graduate Office e-mails graduation ceremony information to students at their Georgia Tech e-mail. This includes information about cap and gown rental, ceremony times, invitations, and receptions.

The Institute requires that students be enrolled during the term of graduation. If students have completed all degree requirements, they can request a waiver of enrollment by completing an **Enrollment Requirement Waiver Form**. The form is available from the Graduate Office or online at https://grad.gatech.edu/theses-dissertations-forms.

The DM program requires that all graduating students **submit their final documentation and presentation material** (their presentation slides from the final presentation, their thesis or final design document as well as other material as seen fit by the advisor) to the ADGS who will archive these documents. The DGS will ask students to create a web site hosted on Georgia Tech servers that documents their final work and may stay online for later documentation and reference as part of LMC 6800/7000.

Alumni Involvement

Graduating students should provide lasting email contact information so they may be put on the Alumni mailing list. Alumni are always welcome guests of the program and are strongly encouraged to come back for visits and to keep us posted on their activities. The dm-alumni mailing list established for the exchange of job postings and other professional announcements.

Alumni resources are available on the DM website: http://dm.lmc.gatech.edu/people/alumni/which provides a means of updating employer information and posting website links by emailing the ADGS updated information. Alumni are encouraged to post job listings to the alumni list, and to forward job and internship listings to the DGS or Associate Director to post for current students. Alumni are encouraged to keep the program up to date on their career accomplishments and affiliations. Alumni are particularly welcome at Demo Days, which usually take place near the end of the semester.

Graduated or un-enrolled students do not have access to program resources (such as computer facilities) by virtue of previous or anticipated student status. Students who are interrupting or terminating their enrollment at Georgia Tech are required to return all keys to the appropriate administrator and should make their own copies of all server-based computer files, since their accounts may be deleted.

DM Course Listings

LMC 6310: The Computer as an Expressive Medium

Required course for all DM majors. Explores the development of the representational power of the computer and the interplay between digital technology and culture. Topics include computer code, structured documents, databases, hypertext, graphical user interface, simulations, online communities, gaming, artificial life, artificial intelligence, and virtual reality.

LMC 6311: Visual Culture and Design

Explores visual media through a mutually instructive and integrated interplay between critical analyses and the creation of digital artifacts.

LMC 6312: Design, Technology, and Representation

Explores historical, cultural, and theoretical issues raised by technologies of representation through critical analyses and the creation of digital artifacts.

LMC 6313: Principles of Interactive Design

Required course for all DM majors. Design principles for exploiting the affordances of the digital medium, including large information spaces and procedural environments. Topics include:

shaping participation, scripting behaviors, segmentation and navigation of encyclopedic environments, assessing legacy conventions, and defining new genres.

LMC 6314: Design of Networked Media

Issues in hypertextual and multimedia design in networked environments, including the World Wide Web, interactive television, and wireless applications.

LMC 6316: Historical Approaches to Digital Media

Explores the place of digital media in the context of earlier media, including various forms of writing as well as the visual media.

LMC 6317: Interactive Fiction

Students create interactive fictions in a variety of formats, including intersecting story worlds, interactive characters, simulations, and replay worlds. Models include films, print stories,

hypertexts, online virtual worlds, and electronic games.

LMC 6318: Experimental Media

Familiarizes students with several areas of emerging technologies by critically examining texts and artifacts within the context of their technical, historical, and cultural antecedents, with a

focus on how technologies and culture mutually influence one another. Our underlying

mission is to question the assumptions under which one works when designing, and to understand how emerging technologies and critical practices may offer us a way to reshape and rethink the world.

LMC 6319: Intellectual Property Policy and Law

Students examine constitutionally informed policy and pragmatic legal issues in intellectual property law, focusing on the effects of power structures and information digitization.

LMC 6320: Globalization and New Media

Historical and theoretical overview of the connections between modes of global integration and modes of representing information, and the application of these insights to globally conceived information design projects.

LMC 6399: Discovery & Invention

Required course for all DM majors. The purpose of this course is to give students a suite of methods they can use in professional settings to discover opportunities for inventive new
computational products and services. It complements the design and production skills developed in 6310 and 6313 with applied research skills. For students in the MS DM and MS HCI programs it will also help them in the development of their MS proposals.

LMC 6213: Educational Applications of New Media

Investigates the educational theory and pedagogical uses of new media applications.

LMC 6215: Issues in Media Studies

Topics may include new media formations, technology and performance, the history of television, audience studies.

LMC 6650 Project Studio (Multiple Sections)

Required courses: At least two semesters are required of all DM students. Project Studio carries 3 credits and involves 9 hours of lab work per week and 1 hour of group seminar. Students work in small research groups headed by a DM faculty member. Admission by permission of each section instructor.

LMC 8801 Special Topics – Digital Media Seminar

The faculty of Digital Media and associated researchers from within as well as outside the program will take turns to give weekly talks that cover one faculty member's research. The course aims to provide an overview of the work conducted at the DM unit. Each presentation will lead up to a discussion of the particular topic and students are expected to engage in these discussions. This course is required for all PhD students in Digital Media. All other students are welcome to join the seminar, but it is not required of Masters Digital Media students.

LMC 8803 Special Topics in Digital Media

Topics vary by semester. Topics include but are not limited to Prototyping, Interactive Installations, Digital Performance, Afrofuturism & the Anthropocene, and Science Technology, & Society Studio. May be repeated. May require permission of instructor.

LMC 8813 Advanced Issues in Interactive Narrative

Topics vary by semester. May be repeated. May require permission of instructor.

LMC 8823 Special Topics in Game Design and Analysis

Topics vary by semester. May be repeated. May require permission of instructor.

LMC 8831 Special Topics in Technologies of Representation

Topics vary by semester. May be repeated. May require permission of instructor.

LMC 6800 Master's Project: Digital Media

Students enroll for 6 credits in their final semester unless they take LMC 7000 instead.

LMC 7000 Master's Thesis: Digital Media

Students enroll for 6 credits in their final semester unless they take LMC 6800 instead.

LMC 8910 Special Problems

Credit hours to be arranged. Open to students wanting to engage in research collaborations with faculty for course credit. Requires permission of instructor.

LMC 8997/8998 Graduate Teaching Assistant or Graduate Research Assistant

3 hours of audit credit counts toward full-time semester enrollment but not toward the degree

Project Studio

All DM students must take at least two semesters of Project Studio (LMC 6650). This course provides studio-based instruction, typically on team projects, focused on computational artifacts and design challenges in digital expression and/or civic media. Students work in studio courses headed by a DM faculty member. Faculty members teach different formats of Project Studios, depending on their particular field. Project Studios differ in their design. They can focus on an ongoing, long-term project, topic, or question, which students join at different stages of development or they might be more explorative. Classes can include critical review sessions, discussions of assigned readings, and regular presentations as well as practical implementations.

Project Studios vary from year to year. Each faculty member overseeing a Project Studio will post a description and the Project Studio Section Number prior to registration. Admission by permission of instructor.

DM Masters Projects and Theses

Establishing DM Masters Project/Thesis Topic and Committee

Students should consult with professors as soon as possible during the first year of study to identify a Chair and an appropriate topic and to decide on whether to present a Thesis or a

Project. Often the Chair will be the leader of a Project Studio for which the students will enroll in the first term and the Project or Thesis topic will be related to the focus of the Project Studio.

The student should consult the Chair about the choice of other Committee Members. The DGS is

also available for advice on choosing a Topic, Chair, and Committee.

By the end of the first semester of study: Students should identify and select a committee chair, committee members (if possible), whether they will do a Project or Thesis, and what the general topic of the Project or the Thesis will be. These factors may change during the following term, but students are expected to enter the program with some beginning sense of their area of study, and to find some focus by the end of the first term.

By the end of the first semester, students should send an email to the Director of Graduate
Studies (DGS) and the Associate Director, stating the *preliminary* topic, chair, committee, and a short description of the Project or Thesis.

The Committee Chair (also called the Thesis or Project Advisor) must be a member of the DM faculty, and so must at least one other member of the Committee. Thesis committees have 4 members, and Project committees have 3 members.

Masters Project / Masters Thesis Proposals

Length: approximately 5 pages (including a timeline for the proposed project)

Proposals are prepared near the end of the Spring semester. Students should consult at least bi- weekly with the Committee Chair starting with the first week of the Spring semester. The final Proposal and Topic Approval Form should be submitted in full to all members of the Committee, the Director of Graduate Studies, and the Associate Director **no later than April 1st.**

A faculty committee will review all the proposals. If the faculty approves the proposal then the Topic Approval Form will be returned to the ADGS with the appropriate signatures. A copy of the Approval Form is kept in the student's file. If revisions are required, the student will be

expected to complete them before the end of the term to the satisfaction of the committee chair and the DGS.

Theses (unlike **Projects**) require an additional Georgia Tech Topic Approval forms to be submitted to the Institute Graduate Office. These forms are available at http://gradadmiss.gatech.edu.

Students will only be allowed to register for the required credits of LMC 6800 Masters Project or LMC 7000 Masters Thesis if their Proposal has been approved.

Elements and Format of a DM Masters Project Proposal

The following sections and material should be included in the proposal. Please use this format when creating your proposal:

- Student name, Title, Type of Proposal (Project)
- Committee Chair and Committee members (if known)
- Abstract: a short summary of the problem, approach, solution, and implementation.
- Statement of problem: what is missing from the world that needs to be invented? Who needs this thing and why?
- Proposed solution: why is this the way to make it? Why is this a compelling thing to make? What design problems or method will you use?
- Review of Existing Material: What are the antecedents to your Project? Description of knowledge base and domain of investigation: What else has been done in this area? What is the context of thinking and making things in which your work is situated?
- Deliverable: A description of the artifact you will create, with as detailed a description of its proposed operation, platform, technical details, and context of use as possible.
- Timetable: with significant milestones going from Summer or Fall semester through the Project presentation week in Spring semester
- Resources: Description of any resources you will need and how you will obtain them
- As necessary: Permissions for copyright works, testing of human subjects, or evidence that a specific user community (e.g., a school system) is likely to adopt the outcome of your work
- References, bibliography, including digital artifacts
- (Throughout or in an Appendix:) Charts, screenshots, storyboards, etc., as needed

Elements and Format of a DM Masters Thesis Proposal

The following sections and material should be included in the proposal. A standard proposal template appears as an appendix to this handbook; please use this format when creating your proposal.

- Student name, Title, Type of Proposal (Thesis)
- Committee Chair and Committee members (if known)
- Abstract: a short summary of the problem, approach, solution, and implementation.
- Statement of research problem: What do we need to understand better, and why do we not understand it already?
- Proposed solution: What approach are you taking and why is it the right one? Make clear the methodology you are pursuing: Is it an empirical approach? Is it a cultural studies approach? How do we judge its rigor and success? What methods will you use, and why? What is the outcome you expect?
- Review of Existing Work: Establish the specific theoretical and practical domains in which this research is being conducted – naming the works in the field(s) that are most similar to what you are doing, or most important to your thinking. Make clear the boundaries of your investigation. How will you go about surveying the domain and evaluating the most productive approaches?
- Annotated Table of Contents: Provide an annotated TOC with a short description of each chapter's contents. What in particular are you going to look at in close detail?

What are your chapter titles? What are the key works you will analyze? What specific issues will you be addressing within the problem domain you have identified in each? How do the components fit together?

- Resources: Description of any resources you will need and how you will obtain them
- Timetable for research and writing, and for Project creation if there is also an artifact, going from Fall semester through Thesis Defense Week in Spring semester
- As necessary: Permissions for copyright works, testing of human subjects, or evidence that a specific user community (e.g., a school system) is likely to adopt the outcome of your work
- References, bibliography, including digital artifacts
- (Throughout or in an Appendix:) Charts, screenshots, storyboards, etc., as needed

Deliverable for a Masters Thesis (archived in DM and in GT Library)

- The **written document** (about 100 pages) is the Thesis, and must cover the literature of the field and contribute to that literature at the level of scholarly completeness
- Can have an artifact associated with it or not
- Must conform to Graduate Office presentation requirements (3 copies) and be submitted by the Institute Deadline: see http://gradadmiss.gatech.edu for full Institute requirements
- Must be submitted to the DM Archive in electronic form. The DM program requires that all graduating students **submit their final documentation and presentation material** (their presentation slides from the final presentation, their thesis or final design document as well as other material as seen fit by the advisor) to a T-Square site for the archive for the DM students and faculty. The DGS will ask students to create a web site hosted on Georgia Tech servers that documents their final work and may stay online for later documentation and reference as a deliverable for LMC 6800/7000.

Deliverable for a Masters Project (archived in DM)

- The complete and functional digital artifact
- A Design Document of a length to be agreed upon by the student and his or her committee chair that surveys the relevant design traditions, problems, solutions; details the design process; and indicates the criteria by which the artifact can be evaluated
- Must by submitted for the DM Archive in electronic form :
- The DM program requires that all graduating students **submit their final documentation and presentation material** (their presentation slides from the final presentation, their thesis or final design document as well as other material as seen fit by the advisor) to the ADGS to archive for the DM students and faculty. The DGS will ask students to create a web site hosted on Georgia Tech servers that documents their final work and may stay online for later documentation and reference as a deliverable for LMC 6800/7000.

Thesis or Project Presentations

Students are expected to present and demonstrate their findings in a public presentation near the end of the Spring term of the second year. Presentations are usually scheduled during one or more afternoons of the second to last week of classes. These presentations represent the

culmination of the work of the Thesis or Project and allow students to share their work with their peers, colleagues, faculty, and friends. The presentations will be part of the final grade for the student's LMC 6800/7000 course.

General guidelines for thesis and project presentations:

Digital Media MS students are required to make an oral presentation of their project or thesis work before they graduate. Each candidate will have approx. 12 minutes for their presentation, with 3 minutes for questions (total 15 minutes). All MS students in both their first and second years should attend the presentations of their peers. There is no formalized presentation template. Each student should find the best way to present their project or thesis work in an informed and intelligent way, demonstrating their fluency in their chosen area of digital media research or practice. A presentation might include the following components:

- Introduction or motivation for the work
- Explanation of the problem or question the project or thesis is trying to address
- Brief overview of related work or literature
- Presentation of the designed artifact or argument
- Brief overview of the design process and implementation
- Short video or demo of the work
- Lessons learned and/or evaluation/results

Students should rehearse and time their presentations in advance. During the presentation, students are advised to speak slowly and clearly, and not to read their slides (slides should be used as props, not as a script). It is also advisable to use more graphics than text on the slides.

The Oral Presentation Grading Rubric can be found in the appendices on page 28.

Submitting the Thesis

Rules for formatting and submitting the masters Thesis are available at grad.gatech.edu the Georgia Tech Graduate Office. Note that all Theses must be submitted electronically according to a strict set of deadlines, and students must also submit a signed paper copy of the Thesis Certification Form. The schedule for submission is available at https://grad.gatech.edu/theses-dissertations/deadlines

In addition, students should prepare an archive of the work, as described above, and submit it to the Associate Director of Graduate Studies.

Submitting the Project

Submission of the final version of the Project must be made before the last day of finals week to the ADGS. The Project Chair should also have a copy of the final version, as should any members of the committee requesting one. The final version should include all the running code and the complete, revised design document.

Instead of handing in physical media the student may submit the final version electronically to the ADGS.

DM Online Archiving and Conference/Journal submission

All Projects and Theses must include a DM Program web page containing screen shots, brief summary, thumbnail image, and pdf copy of the project proposal and the final Thesis or design

document. Where feasible and appropriate the code or a video of the running application should also be included. Slides from the final presentation are also appropriately archived here.

Students are also strongly encouraged (and may be required by individual advisors) to submit their Project/Thesis work to appropriate conferences and journals.

The DM program hopes to showcase the Projects for publicity and as models for future students. Students who do not wish for their work to be shared publicly may make a request to exclude it from public access.

Event or Demo Day Presentations

Masters students are expected to present their Theses and Projects at official program events or Demo Days during the year, but particularly during the final term of study.

Sample Program of Study

Year One – Fall

LMC 6310 The Computer as an Expressive Medium (core)
3 LMC 6399 Discovery and Invention in Digital Media (core)
3 LMC 6650 Project Studio 3
LMC 8997 Research Assistantship **or** 3*
LMC 8998 Teaching Assistantship
Total Semester Hours (9 to degree) **12**

Year One – Spring

LMC 6313 Principles of Interactive Design (core) 3
LMC 6650 Project Studio 3
Elective (e.g. CS 6750 Intro to Human Computer Interaction)
3 LMC 8997 Research Assistantship **or** 3*
LMC 8998 Teaching Assistantship
Total Semester Hours (9 to degree) **12**

Internship during summer

Year Two – Spring

LMC6800/7000 Masters Project 3
Elective (e.g. CS 6650 Project Studio) 3
Elective (e.g. CS 6650 Project Studio) 3
LMC 8997 Research Assistantship **or** 3*
LMC 8998 Teaching Assistantship
Total Semester Hours (9 to degree) **12**

*3 Hours of LMC 8997 or LMC 8998 count towards full-time student credit per term but not toward degree credit hours.

Sample Electives Outside of LMC

CS 6750 Introduction to Human-Computer Interaction
CS 6460 Foundation of Educational Technologies
CS 6470 Online Communities
CS 7450 Information Visualization CS
8803 Web Usability

Program Contact Information

Administration

Brian Magerko, Ph.D.
Director of Graduate Studies (DGS), LMC
magerko@gatech.edu

Driani Gambrell
Assistant Director of Graduate Studies (ADGS), LMC
dgambrell30@gatech.edu

DM Email Lists (for internal use only)

DM Faculty: lmc-dm-faculty@lists.iac.gatech.edu
DM MS Students: lmc-ms-students@lists.iac.gatech.edu
DM PhD Students: lmc-phd-students@lists.iac.gatech.edu
DM Alumni: dm-alumni@lists.iac.gatech.edu

Digital Media General TEAMS Chanel Digital Media Microsoft TEAMS Link

Appendices

Digital Media Department Required Forms

Thesis/ Project Topic Approval Form: https://dm.lmc.gatech.edu/forms/

Georgia Tech University Required Forms

Request for Approval of Masters Thesis Topic (office of Graduate Studies) Available at: https://grad.gatech.edu/theses-dissertations-forms

Certificate of Thesis Approval for Masters Students (office of Graduate Studies) Available at: https://grad.gatech.edu/theses-dissertations-forms

MS Oral Presentation Grading Rubric

1. **Oral and Visual Communication**
   Does the presentation thoroughly but concisely present the: Problem, Significance to the field/ and beyond the field, Research question, Thesis/Hypothesis/Argument, Method, Results, and Conclusion? Is the oral presentation engaging? Does the presenter answer questions thoroughly?

   a. Excellent 100-90%
   b. Very good 89-80%
   c. Good 79-70%
   d. Poor 69-60%
   e. Fail 60% <

2. **Oral and Visual Communication/ Deck**
   Is the slide deck visually appealing? Readable? Do the design elements aid the arguments being presented? Are the graphics relevant? Is the text and graphics arranged so that the reader can understand the order without narration?

   a. Excellent 100-90%
   b. Very good 89-80%
   c. Good 79-70%
   d. Poor 69-60%
   e. Fail 60% <

3. **Demo Video (if applicable)**
   Does the video include a clear thesis/problem statement? Do the visuals, audio, and setting convey an argument presented in a logical order? Additional consideration may be offered for technical sophistication: editing, art direction, photography, music choices.

   a. Excellent 100-90%
   b. Very good 89-80%
   c. Good 79-70%
   d. Poor 69-60%
   e. Fail 60% <

4. **Design Project/ Concept**

   a. Evaluate the project with regard to its conceptual basis. How clear are the concepts informing the project? What design ideas or theories is the project drawing on? What is the intended use of the project? What questions is it trying to answer? Is the overall meaning of the project clear? Is the project's methodology clear?

   b. Excellent 100-90%

c. Very good 89-80%
d. Good 79-70%
e. Poor 69-60%
f. Fail 60% <

5. Design Project/ Technical Craft

Evaluate the project with regard to its technical craft. What, how, and why are specific materials and/ or technologies utilized? What technical skills are on display in the project? How well does it work/perform? Do the technical aspects reflect and deliver on the project's conceptual basis? Does the project bear evidence of iterative design processes?

a. Excellent 100-90%
b. Very good 89-80%
c. Good 79-70%
d. Poor 69-60%
e. Fail 60% <

6. Design Project/ Interaction / Design Aesthetics

Are interaction and aesthetic designs well developed and implemented? Do interaction design and the aesthetic choices (visual/ haptic/ acoustic/ etc.) match the stated goal of your project? Is the interaction itself suitable for the main concept? Does the project feature unique aesthetic choices and do they fit the main concept?

a. Excellent 100-90%
b. Very good 89-80%
c. Good 79-70%
d. Poor 69-60%
e. Fail 60% <

7. Design Project/ Interpretive Evaluation

Do you offer a critical reflection on the piece? Are you aware of sufficient related works and can you put the piece in relation to these works? Can you position the piece in a particular tradition, practice, and/ or theory? Can you identify key contributions, shortcomings, and opportunities that emerged from your work on this project?

a. Excellent 100-90%
b. Very good 89-80%
c. Good 79-70%
d. Poor 69-60%
e. Fail 60% <

8. Comments on strengths and areas for improvement **for the oral and visual presentation, including the project video**?

9. Comments on strengths and areas for improvement in the **design project and interpretive evaluation**?

10. Should the student pass based on the presentation? Yes/ No

11. Should this project be considered for an **award**? Yes/ No