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Background

Historically, writers and designers were distinct breeds of communicators. Recruited from different backgrounds, they worked with different tools, and participated in different contexts of work. This division of expertise, reinforced by many universities and trade schools, sheltered writers from those who presented their words and often left designers out of the planning process.

As we continue into the 21st century, however, new technologies are revolutionizing the environment of communication. Computing and new media are appearing at every level of communication design, blurring the traditional boundaries between creation and production, writing and designing, strategy and implementation. With a broader view of the information landscape, writers and designers are expected to tackle the planning of complex communication systems, as well as take increasing responsibility for both the verbal and the visual aspects of their work. The need to relate more complex information to a greater variety of audiences demands that writers and designers expand their individual roles and collaborate in formerly unexpected ways.

To better prepare students for the new role they are increasingly asked to play as communication planners and designers, there must be new arts of communication and a new field of research and inquiry. The new arts will combine words and images, sound and motion, using technologies from print to video, from photography to interactive media. The new field is communication planning and information design, encompassing all the disciplines required for the conception, planning, production, and delivery of effective communication.
The Master of Design in Communication Planning and Information Design is a two-year professional program for students who want to explore the new arts of communication and the creative potential of the interplay between words and images in traditional and emerging media. Students investigate the influence of narrative and argument in shaping information design. In this forum, they discover both opportunities and challenges in information visualization and navigation created by new technologies. The program provides a balanced integration of theory, practice, and production in seminar and studio courses. Recent themes of exploration include new narrative structures in new media, visual voice and identity in print and digital formats, visualizing complex information spaces, and strategic planning for communication systems.

In project courses, there is a balance of collaborative work and individual exploration, with sponsored projects from clients such as Motorola, Microsoft, University of Pittsburgh Medical Center, Carnegie Museum of Art, Samsung Electronics, and the U.S. Postal Service. The goal of the program is to prepare students for advanced levels of professional employment as communication planners and designers in the areas of print communication, design planning, systems design, dynamic information design, interactive multimedia, and internet communication.
Program Description

In the first year, all students participate in core seminar and studio courses. The seminars provide the intellectual foundation of the program, with readings in rhetoric and other approaches to communication design, an investigation of information in narrative and argument, and careful analysis of a wide range of communication design examples in traditional and new media. Through individual and group projects, the studio courses provide practical experience in communication planning and design, introducing students to the concepts, methods, techniques and tools that combine verbal and visual communication. In addition, students take other courses that broaden their preparation for advanced work. Students are encouraged to take courses in departments across campus, choosing those suited to their personal interests.

In the second year, the focus shifts to individual exploration through a thesis project. This is developed in a two-semester sequence of work with an advisor, with possible opportunities for practical experience with sponsoring corporations, campus research centers, or nonprofit institutions.
Graduation Requirements

The Master of Design in Communication Planning and Information Design is a two-year program. A minimum total of 180 units (equal to 60 credits) are required for graduation. In the second year, students are required to propose, plan, develop, and complete a thesis that demonstrates mastery of design thinking and action.

Summer internships are strongly encouraged and we inform students of available positions nationwide. The School of Design holds an annual event, Confluence, when 40–50 companies from around the country come to campus to interview students for internship and full-time positions. It will be the student’s responsibility to follow through with applications and interviews. Past internships have been in Boston, New York, Chicago, Pittsburgh, San Francisco, Seattle, Amsterdam, and Sydney, Australia.
## Elements of the Curriculum

The following diagram represents the sequence of the curriculum, including specific required courses.

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Course Descriptions

Graduate Design Seminar I: Design and Human Experience
Through extensive reading, examples, and discussion we explore design in its relationship to human interaction and communication. We consider differing ways of thinking about interaction and communication and the practical implications of these lines of thought in the design of products. We examine the enduring arts of design and how they relate the conceiving, planning, and making of products to the lives and living of people and their environments. Finally, we conclude by considering design in its ethical relationships to global, cultural, and individual life. Prerequisite: concurrent registration in Graduate Design Studio I or approval of instructor.

Graduate Design Seminar II: Topics in Communication Design
In this seminar, we will examine communication design from multiple perspectives, including rhetoric, information design, cognitive psychology, philosophy, and design theory. We will read and discuss significant works that have influenced modern communication design, paying close attention to their impact on today’s communication practitioners as well as outstanding opportunities for further research. In addition, we will explore these ideas through small case studies from a variety of contexts—from data visualization to advertising, product brochures, public relations, and political campaigns. Required assignments include a brief weekly response report to the readings, one short paper, and a final research paper about a topic chosen by students based on their professional or research interests. This course is primarily designed for students in the CPID program. It is intended to provide the students with the broad intellectual foundation relevant to their professional field, and to help them prepare for thesis work. Prerequisite: concurrent registration in Graduate Design Studio II or approval of instructor.

Narrative and Argument
This course presents and gives students practice in writing as a form of experiential design. Students learn how texts that present narrative, argument, and information differ in the local design choices writers make as they plan the reader’s experience. Students learn and gain practice in seven “prototypes” of reader experience that are foundational to the spectrum of English written genres, from fiction to non-fiction. The seven prototypes include helping a reader create personal acquaintance from the first person (self-portrait) or third person (observer portrait) point of view; helping a reader become acquainted with a present space (scenic writing) or time-bound spaces from the past (narrative history); guiding the reader’s learning (information), manual problem-solving (instruction) and decision-making (argument). Students learn to think systematically about the writing craft and concrete techniques to improve their own craft.
Graduate Design Studio I: Visualizing Complex Information

This course explores visualizing the content and structure of complex data. The effective integration of words, images, sound and motion at the service of communicating complex information is the core of this semester’s work. Understanding the differences between static paper-based methods and dynamic digitally-based methods will inform our discussions and critiques. Theories of communication, learning, and human-centered design and evaluation, presented and discussed in the graduate seminar course, will inform the design process as students work independently and collaboratively on projects. Prerequisite: concurrent registration in Graduate Design Seminar I or approval of instructor.

Graduate Design Studio II: Graduate Design Project

An extension of Graduate Design Studio I, with an emphasis on applying the principles of Studio I and Seminar I to a semester-long team project. The focus is on research, strategic thinking and design process which leads to planning and development of communications systems or services. This is an externally-sponsored project that involves teamwork, collaboration, and client interaction—critical skills for any designer. Past clients have included Motorola, Microsoft, and the Carnegie Museum of Art. Prerequisite: concurrent registration in Graduate Design Seminar II or approval of instructor.

Graduate Prototyping

This course introduces graduate students in the Master of Design programs to a range of prototyping methods—from paper to interactive prototypes. The course provides students with the concepts and vocabulary, as well as the practical skills of prototyping through a series of hands-on exercises. Prototyping interactive user interfaces with Flash/Action Script, prototyping use-case scenarios with video sketches, and prototyping web-based applications with Web 2.0 technologies will be the primary focus of the course. Students are expected to develop the foundational prototyping skills that are necessary to create effective design prototypes in their future classes as well as their professional work. Prerequisite: concurrent registration in Graduate Design Seminar I or approval of instructor.

Graduate Colloquium

This seminar exposes students to the emergent issues in the research and practice of Design through weekly discussions with individual faculty members. The seminar also serves as a broad overview of research topics students may pursue in their second year thesis project. Restricted to first semester students in the Master of Design programs.
Research Methods: Human-Centered Design
This course will present an opportunity to examine and discover research methods currently employed by the design professions, and to understand the conceptual foundation of research methodology. Methods may include basic statistics, scales and measures, archival research, surveys, questionnaires and interviews, observational methods and ethnographic studies, contextual inquiry and usability testing, participatory techniques and workshops, and the role of visual description within the design research process as expressed and analyzed through drawing, collage, modeling, photography, and diagramming. The course will equip students with the necessary tools to determine appropriate methods for specific design research needs, how to find supporting resources, and the ability to critically evaluate existing research.  
Prerequisite: concurrent registration in Graduate Design Studio II or approval of instructor.

Thesis Preparation
Participation in this course is limited to students in the Master of Design in Interaction Design and Master of Design in Communication Planning and Information Design Programs who are scheduled to start their Thesis Project the following semester. Throughout this semester course, students prepare their proposal for their Masters Thesis project. Students are expected to select their thesis topic and identify and engage a thesis advisor who agrees to advise their project during the subsequent semesters. Students must submit a completed Thesis Project Proposal signed by their advisor in order to pass this course. This course is a pre-requisite to Thesis I.

Thesis I & II
At the close of the first year, each student proposes a thesis project to be carried out in the second year. Projects may be individual or collaborative. Students also identify faculty members to serve as thesis advisors, monitoring progress on the project throughout the year. Over the second academic year, students carry out the reading, analysis, exploration, and networking required to plan, research, and deliver a thesis project. Students present their projects for public review and critique in the middle and at the end of the academic year. Prerequisite: advanced standing in the graduate program.

Elective Courses
Elective courses enable students to pursue their specific interests in shaping their educational experience at Carnegie Mellon, as well as overcome deficiencies in their design or writing preparation. With faculty advice, these courses may be selected from Design, English, and other departments throughout the university. For example, students may wish to take a course in Organizational Behavior from the Tepper School, a course in Time, Motion, and Communication from the School of Design, or a course in Technology in American Society from the History Department.
Key Faculty

Daniel Boyarski
typography, dynamic information design, interaction design
M.F.A., Indiana University; post-graduate work, Allgemeine Gewerbeschule Basel, Switzerland.
Professor and Director of Graduate Studies, Design

Charlee Brodsky
photography & communication
M.F.A., Yale University. Professor, Design

Claudia Carlos
history of rhetoric, the rhetoric of indirection, style as argument, early modern French rhetoric
Ph.D., University of Illinois. Assistant Professor of Rhetoric, Carnegie Mellon

Bruce Hanington
research methods, human factors, industrial design
M.E.Des., University of Calgary. Associate Professor and Chair, Industrial Design Program, Design

Linda Flower
cognitive process of reading and writing, deliberation in local publics, literacy, students with disabilities, decision making, writing about environmental issues
Ph.D., Rutgers University. Professor of English and Rhetoric

Paul Hopper
discourse analysis, theories of language, historical linguistics
Ph.D., University of Texas. Professor of English and Linguistics and Mellon Distinguished Professor of Humanities

Kristin Hughes
communication design & typography, community-based design
M.F.A., Virginia Commonwealth University. Associate Professor, Design

Terry Irwin
sustainable design, information and systems design, typography
MSc., Schumacher College, M.F.A., Allgemeine Kunstgewerbeschule Basel.
Professor and Head, School of Design

Suguru Ishizaki
visual/verbal experience, visual literacy & design pedagogy, intelligent critiquing systems, visualization, text analysis
Ph.D., Massachusetts Institute of Technology. Associate Professor of Rhetoric and Communication Design, and co-director of the CPID program

Barbara Johnstone
discourse analysis, sociolinguistics, language and place, language and identity, style (in language), American English, Pittsburgh
Ph.D., University of Michigan. Professor of Rhetoric and Linguistics, English

David Kaufer
design as an approach to writing, rhetorical theory, rhetorical analysis, textual analysis, corpus methods
Ph.D., University of Wisconsin. Professor of English and Rhetoric

Mark Mentzer
drawing, color, visualization
B.F.A., Carnegie Mellon University. Professor, Design
Karen Moyer
mapping/diagramming, color, information design
B.F.A., Philadelphia College of Art and Design. Associate Teaching Professor, Design

Christine Neuwirth
computer-supported cooperative work; argumentation, peer review, computer-mediated communication, style, social networking, tutoring, collaborative writing, annotation
Ph.D., Carnegie Mellon University. Professor of English & Human-Computer Interaction and Department Head, English Department

Kathy M. Newman
media theory/media history/history of class status as it relates to design and taste
Ph.D., Yale University. Associate Professor of English

Andreea Deciu Ritivoi
political rhetoric; narrative and identity, globalization and communication; immigration; professional communication and public policy
Ph.D., University of Minnesota. Associate Professor of English and Rhetoric

Stacie Rohrbach
dynamic information design, typography, perception and design
M.G.D., North Carolina State University. Associate Professor, Design

Karen Schnakenberg
communicating expert knowledge to nonexperts especially when information needs to be used to make decisions; professional & technical writing; instructional design/teaching/pedagogy; institutional history
Ph.D., Carnegie Mellon University. Teaching Professor, Rhetoric & Professional Writing

Dylan Vitone
digital photographic imaging, photo documentation
M.F.A., Massachusetts College of Art. Assistant Professor, Design

Danielle Zawodny Wetzel
literacy & composition theory, second language writing, teacher education & training
Ph.D., Carnegie Mellon University. Director First-Year English Program, Assistant Teaching Professor

James Wynn
technical & professional writing, rhetoric & science & public policy
Ph.D., University of Maryland. Assistant Professor of Rhetoric
Environments

Graduate Facilities
Graduate students in this program work and study in reserved studio spaces. While students are expected to bring their own laptops, they will be given the latest software for word processing, page layout, imaging, and motion graphics work. Input and output hardware include scanners, black and white and color printers of various sizes; also available are higher-end workstations, video editing suites and a sound studio in the College of Fine Arts multimedia studio. All students have access to the internet through the university’s connection.

Pittsburgh
With safe neighborhoods, a low cost of living, and an abundance of educational and cultural activities, Pittsburgh was recently named Places Rated Almanac’s most livable city. The Golden Triangle, downtown at the confluence of the Allegheny and Monongahela rivers, is the heart of the business district, with a range of restaurants, galleries, and theaters for the performing arts. Pittsburgh is also the home of major league teams like the Steelers, Pirates, and Penguins. The neighborhoods around Carnegie Mellon boast international restaurants, coffee houses, shops, alternative and mainstream cinema, galleries and the Carnegie Museums of Art and Natural History.

www.pittsburgh.net
www.visitpittsburgh.com

Carnegie Mellon
In the tradition of its founders, Andrew Carnegie and Andrew and Rachel Mellon, Carnegie Mellon today encourages students to pursue excellence in all disciplines, from robotics to music. The result is nationally acclaimed programs in design, drama, rhetoric, psychology, business, and computer science, among many other disciplines. The Carnegie Mellon community thrives on the energy of 5,400 graduate students, 6,000 undergraduates, and 1,400 faculty members, representing a host of academic and extracurricular interests.

www.cmu.edu
Recent Visitors

Sang-Soo Ahn, Hongik University, Seoul, Korea
Elaine Ann, Kaisor Innovation, Hong Kong
Chris Kasabach, BodyMedia, Pittsburgh
Freddy Anzures, Apple
Will Bardel, Mijksenaar Arup Wayfinding, New York City
Mary Jo Bitner, Arizona State Univ, Tempe
Maggie Breslin, Mayo Clinic, Rochester
Matthew Carter, Carter & Coyne, Boston
Scott Charon, Herman Miller, Grand Rapids
Hugh Dubberly, Dubberly Design, San Francisco
Daniel Fallman, Umea, Sweden
Jim Faris, Google
Richard Foque, Antwerp, Belgium
Ben Fry, Boston
Chloe Gottlieb, R/GA, New York
Harold Hambrose, Electronic Ink, Philadelphia
Edith Harman, New Balance, Boston
Cai Jun, Tsinghua University, Beijing
Lorraine Justice, Hong Kong Polytechnic
Chris Kasabach, BodyMedia, Pittsburgh
Tom Key, 2nd Road, Sydney, Australia
Oliver King, Engine, London
Ilpo Koskinen, Aalto University, Finland
Kun Pyo Lee, KAIST, Korea

Michael Lenaham, Microsoft
Octavio Lubrano, Nike, Portland
Morten Lund, Amsterdam
Victor Lo, Gold Peak Industries, Hong Kong
Paolo Malabuyo, Microsoft
Ezio Manzini, Politecnico Milano
Chaz Maviyane-Davies, Zimbabwe & Boston
Bill Moggridge, IDEO, Palo Alto
Harold Nelson, UW, Seattle
Ingo Offermanns, Hamburg, Germany
Kees Overbeeke, tu/Eindhoven, the Netherlands
Chris Pacione, Maya/Luma Design, Pittsburgh
Christopher Pullman, WGBH, Boston
Rick Robinson, Chicago
Ruedi Ruegg, Designalltag, Zurich, Switzerland
Liz Sanders, MakeTools, Columbus
Ewa Satalecka, Katowice, Poland
Christian Schwartz, Commercial Type, NY
Brad Smith, Doblin Group, Chicago
Scott Summit, Summit Group, San Francisco
Andreas Tschachtli, St Gallen, Switzerland
Laurene Vaughan, RMIT, Australia
Martin Wattenberg, IBM Research
Brad Weed, Microsoft
Fu Zhiyong, Tsinghua University, Beijing
Sample Thesis Project Titles & Where Our Alumni Work

Sample Thesis Titles
Graphing Complicated Legal Cases
Boundary Objects in the Real World: Shared Representations for Moving Work Ahead
Designing for Civic Participation: ivotebecaus.org
Physicality as a Mode for Creating Meaningful Places
Towards Expertise: The Role of Chunking in Developing Productive Fluency in Drawing
Enhancing Poetry Appreciation Through Dynamic Presentation
Bridging the Information Gap: Making Prescription Drug Instruction More Accessible
Teaching Design Without Teachers: Learning Design in an Online Environment
As Simple As Possible: Toward a Better Understanding of Simplicity in Design
OpenForChange: Connecting the Open Source and Social Change Communities

Alumni From This Program Are Working At
Google, Mountain View, CA as User Experience Designer
Mijksenaar Arup Wayfinding, New York, NY as Wayfinding Designer
Microsoft, Remond, WA as Senior Researcher
YouTube, San Francisco, CA as User Experience Designer
Roundarch, Boston, MA as User Experience Lead
Siegel & Gale, New York NY as Director of Digital Strategy and as Senior Information Architect
Insight Product Development, Chicago IL as Interface Designer and Researcher
R/GA, New York as Interaction Designer
Mayaviz, Pittsburgh PA as Senior Designer
Eureka Insights LLC, San Francisco, CA as Founder and President
Maximum Design & Advertising, Wilmington NC as Designer and Market Research Specialist
Intel, Portland OR as Research Scientist
Burson-Marsteller, Pittsburgh PA as Senior Vice President and Creative Director
Equal Opportunity Assurance

Carnegie Mellon University does not discriminate in admissions, employment, or administration of its programs or activities on the basis of race, color, national origin, sex, or impairment, in violation of Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 or other federal, state, or local laws or executive orders.

In addition, Carnegie Mellon University does not discriminate in admissions, employment, or administration of its programs on the basis of religion, creed, ancestry, belief, age, veteran status, sexual orientation in violation of federal, state, or local laws or executive orders. However, in the judgement of the Carnegie Mellon Human Relations Commission, the Department of Defense policy of “Don’t Ask, don’t tell, don’t pursue” excludes openly gay, lesbian, and bisexual students from receiving ROTC scholarships or serving in the military. Nevertheless, all ROTC classes on this campus are available to all students.

Inquiries concerning application of these statements should be directed to the provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone (412) 268-6684, or the Vice President for Enrollment, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone (412) 268-2056.
Tuition, Housing & Financial Aid

Tuition
Full-time graduate tuition for the 2010–2011 academic year is $33,000. Full-time study is defined as taking at least 36 units.

Housing
The Carnegie Mellon Housing Office can help new students find apartments within walking distance to campus or near the CMU shuttle bus route. Visit www.housing.cmu.edu/communityhousing.

Financial Aid
For our full-time graduate students, we have a limited number of paid assistantships, usually in the range of $2,000–$4,000 per semester, in exchange for approximately six hours of work per week for the School. All applicants are invited to apply for one of these assistantships. Additional scholarships may be available, but these are up to the individual student to seek out for application. You can learn about other financial aid options from www.cmu.edu/hub.
What Next?

Professors Dan Boyarski (Design) and Suguru Ishizaki (English) are co-directors of the Communication Planning and Information Design program. Each will be glad to meet with you or discuss the program by telephone or email.

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