The Medical & Biological Illustration (MBI) graduate program provides broad interdisciplinary education and training in medical illustration. This 22-month program meets both the scholarship requirements of the University for a Master of Arts degree and the visual communication needs of today’s health science professionals.

As part of the Department Art as Applied to Medicine in the Johns Hopkins University School of Medicine, students in the MBI program have easy access to all the facilities of the world-renowned Johns Hopkins Medical Institutions. The integral connection between the MBI graduate program and the medical illustration services provided by faculty of the Department allows students to mentor with practicing Certified Medical Illustrators (CMI), to use the most technologically advanced production equipment, and to observe faculty members as active illustrators in the Hopkins community.

Medical illustration training at Johns Hopkins formally began in 1911 under the leadership of Max Brödel with an endowment from Henry Walters. While the first students earned certificates, since 1961, students have earned a Master of Arts in Medical and Biological Illustration. The MBI program has enjoyed continuous accreditation since 1970. The most recent review by the Commission on Accreditation of Allied Health Education Programs is set for 2018.

The Profession

There is a growing need for clear accurate visuals to communicate the latest advancements in science and medicine. Effective medical illustration can teach a new surgical procedure, explain a newly discovered molecular mechanism, describe how a medical device works, or depict a disease pathway. Through their work, medical illustrators bridge gaps in medical and healthcare communication.

Graduates of the Johns Hopkins Medical and Biological Illustration program have a strong history of high employment rates with some students receiving job offers prior to graduation. The graduates from 2014-2018 had an employment rate of 95% within the first 6 months.

Looking ahead, medical illustrators will continue to fill the vital role of illuminating medicine. Growth areas in medical illustration include: 3D modeling and animation, virtual and augmented reality, and interactive design.
Program Resources

Our most important resource - Faculty
6 full-time in our Department, 10 part-time, and 4 full-time joint-appointed. They include: 6 Certified Medical Illustrators, 1 Board Certified Clinical Anaplastologist, and 5 with Doctoral degrees.

Recognized by peers with elected leadership positions, amongst our faculty are 4 past Presidents of the AMI, 4 Chairs of the Board of Governors, 6 present and past leaders of the Vesalius Trust, and 1 past President of the IAA.

A large Student Studio with natural light and individually partitioned work areas for each student as well as ample communal space.

Computer Labs with Apple iMacs, equipped with all coursework software, and Wacom tablets for each student.

Access to Johns Hopkins Medical Institutions, a renowned health care and research community including the nationally ranked Johns Hopkins Hospital, School of Medicine, and Bloomberg School of Public Health.

JHMI educational facilities including the Armstrong Medical Education Building and the graduate programs building with the STILE Classroom.

The Welch Medical and the Eisenhower Libraries provide robust resources for student research.

Admissions

The goal of the Admissions Committee is to find students with intellectual curiosity and a passion to communicate medicine and science through dynamic visuals. We seek candidates who demonstrate high academic performance in science, particularly the life sciences, excellent draftsmanship, and strong verbal and written communication skills.

Admission Requirements

Baccalaureate degree (BS, BA, BFA, etc.)
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Admission Requirements

Baccalaureate degree (BS, BA, BFA, etc.)

High academic standing

Graduate Record Exam (GRE) optional

Science

One semester in each science course taken at a level for science majors

F1705A

- General Chemistry
- Vertebrate Anatomy* with mammalian (cat) dissection lab
- Vertebrate Physiology* including organ systems
- Upper-Level Biology at least one of the following: Molecular Biology, Embryology (Developmental Biology), Histology, Immunology, or Cell Biology

* A two-semester course in Human Anatomy and Physiology (part 1 and part 2) which includes a mammalian dissection lab may be substituted for both Vertebrate Anatomy and Vertebrate Physiology prerequisites.

Art

A Portfolio demonstrating artistic ability in the following

General Drawing Realistic drawings created from direct observation expressing form in space, light on form, and a variety of surface textures. Examples should demonstrate skilled draftsmanship, ability to render detail, and should include still life arrangements and animal and plant studies.

Figure Drawing Advanced studies of the human figure drawn directly from the model. Examples should include both long and short poses rendered in a variety of media.

Color Media Examples demonstrating accomplished use of transparent media such as watercolor or colored pencil and opaque media (acrylic, gouache, oil) should be included. Landscape and still life subject matter rendered in representational manner demonstrating the ability to match colors accurately and to create form and space with color.

Digital Media Knowledge and experience in vector and raster imaging applications. Courses in 2D animation, 3D animation, and web design are recommended.

Graphic Design Layouts that integrate image and typography to conform to a pre-selected format and audience. Client-oriented visual communication projects.

Writing

English Composition

Other advanced art specialties

Recommended Courses

Art History
Color Theory
Scientific Writing
Other advanced art specialties
Portfolio Guidelines

Admissions Portfolio and Applicant Profile access opens November 1st, and submissions are due no later than January 15th.

Portfolio Contents:

- 20 samples of your artwork
- Examples of all 5 required art categories:
  - General Drawing
  - Figure Drawing
  - Color Media
  - Digital Media
  - Graphic Design
- A minimum of 5 figure studies
- A minimum of 2 digital media pieces (graphic design, or illustration)
- A maximum of 2 examples of art outside the required categories may include sculpture, fine art prints, multimedia presentations, or photography

NOTE: Avoid including medical, anatomical or physiological subject matter

When uploading your Portfolio art, you will be asked to identify the following for each image:
- Title
- Description
- Medium / software
- Original size
- Date of completion
- Source - direct observation, photo reference, or both

Further detail on the portfolio categories is available: medicalart.johnshopkins.edu/sample-portfolio

Portfolio Upload:

Please submit images of the 20 samples of your artwork at a high resolution. A safe guideline is to make the largest dimension 1024 pixels. Your Portfolio can include still images and video. The Portfolio may include the following file types (preferred formats in bold):

- Images (max 5MB each): .jpg, .jpeg, .png, .gif, .tif, .tiff, .bmp, or .tga
- Videos (max 250MB each): .mov, .mp4, .m4v, .wmv, .flv, .asf, .mpeg, .mpg, .mkv
- Linked Media: Vimeo, YouTube, SoundCloud, and Sketchfab
- Documents (max 10MB): .pdf

The 20-image Portfolio and Applicant Profile must be submitted no later than January 15th using the following website: hopkinsmedart.slideroom.com

Application Process

A cohort of up to 7 students is selected each year to matriculate in early August.

Step One: The Portfolio

Interested candidates submit a 20-image Portfolio and answer Applicant Profile questions online. The submission website opens November 1st and portfolios are due January 15th. There is a $10 fee to submit the online Portfolio and Applicant Profile.

hopkinsmedart.slideroom.com

Step Two: Application & Interview

Based on the portfolio and applicant profiles, the Admissions Committee invites select candidates to continue in the process through the formal School of Medicine Graduate Programs Application site and a visit to Baltimore for personal interviews to review original artwork. Due dates for the Application and Supporting Documents are provided at the time the interview date is set. Candidates may be asked to bring additional original artwork.

Supporting Documents include:

1. Three letters of recommendation. At least one from a science instructor and one from an art instructor
2. Transcripts from all colleges and universities attended
3. Statement of Interest in the MBI program
4. Application fee
Curriculum

The MBI program offers a robust curriculum designed to prepare future leaders in the medical illustration profession. Accredited since 1970, the MBI program offers courses in visual communication of medicine and life-sciences as well as graduate level science courses in the School of Medicine.

medicalart.johnshopkins.edu/curriculum/

The First Year

The first year curriculum includes courses in advanced sciences, illustration, animation, 3D modeling, graphic design, instructional design, medical photography and business practices. These core courses encourage research, close observation, accuracy, effective visual communication, exploration of various media, and learning in the sciences that will inform a future in medical illustration.

DEPARTMENTAL COURSES
- Anatomical Illustration
- Business Policy
- Communications Media: Photography
- Communications Media: Graphic Design
- Continuous Tone Illustration
- Design of Instructional Programs
- Digital Imaging I - Vector and Raster Illustration
- Digital Imaging II - Raster Illustration
- Digital Imaging III - 3D Modeling and Animation
- Digital Imaging IV - 2D Animation
- Editorial and Conceptual Illustration
- Graphic Design Concepts
- Illustrating Anatomy
- Medical Sculpture
- Pen & Ink Illustration

SCIENCE COURSES
- Human Anatomy with Embryology
- Molecular and Cellular Visualization
- Neuroanatomy for the Medical Illustrator

The Second Year

The second year curriculum applies the skills and knowledge acquired in the first year coursework to advanced topics including surgical illustration, scientific writing, website development, interactive media, independent research and thesis, presentations to scientific audiences, and ophthalmological illustration. The second year curriculum is the Portfolio course designed to help students transition to professional life.

DEPARTMENTAL COURSES
- Digital Imaging V - Web Animation & Interactivity
- Operating Room Sketching
- Ophthalmological Illustration
- Portfolio
- Research and Thesis
- Scientific Communication
- Surgical Illustration

SCIENCE COURSES
- Pathology for Graduate Students

ELECTIVE STUDIES
Arrested Development: Advanced Illustration Currents
- Advanced Projects in Illustration
- Independent Study

Graduate Degree Requirements

University

A candidate’s period of attendance in the program will be no less than 18 months. Transfer graduate students must register a minimum of two consecutive semesters as full time residents.

Certification by the Department or Graduate Program Director that all requirements have been fulfilled.

Department

Each candidate must successfully complete all courses offered and must submit a thesis on a subject approved by the Department or Graduate Program Director. The completed thesis must be approved by a university qualified preceptor as worthy of acceptance in partial fulfillment of requirements for the M.A. degree. The candidate’s standing will be reviewed by the Committee on M.A. and Ph.D. Programs before being recommended for degree.

Students who receive three unsatisfactory grades may be dropped from the program. Students who receive more than ten credits with grades of C or lower are placed on academic probation.

Students must satisfactorily complete all science courses: Molecular and Cellular Visualization, Neuroanatomy for the Medical Illustrator, Human Anatomy with Embryology, and Pathology.

Students must outline their thesis research and consult with their preceptor by the first quarter of the second year. The thesis must include original investigation and expository illustration, and may also include 3D digital or physical models, 2D or 3D animation, video, or immersive technology.

Student’s final thesis and seminars must be approved by the Department or Graduate Program Director that all requirements have been fulfilled.

Questions or concerns should be directed to The Office of Institutional Equity The Johns Hopkins University Wyman Park Building, Ste. 515, 410-516-8075, oie@jhu.edu.