COMMUNICATION ARTS, BACHELOR OF FINE ARTS (B.F.A.) WITH A CONCENTRATION IN SCIENTIFIC AND PREPARATORY MEDICAL ILLUSTRATION

The instructional program for students in the scientific and preparatory medical illustration concentration differs from the traditional communication arts major beginning in the sophomore year and primarily affects elective studies selections.

The required 32 credits in the biological sciences and chemistry become the student’s general studies electives for this major. These courses build the background knowledge necessary to produce images that present complex scientific and medical information clearly and with appropriate fidelity. Students in this concentration must complete 124 credits to graduate.

Within the communication arts course work, requirements differ for this concentration. The courses in typography and visual studies: design and drawing are not required, but scientific illustration is required. There are also some electives in scientific illustration offered.

Learning outcomes
• Students will demonstrate proficiency in drawing, including the figure.
• Students will demonstrate conceptual and critical thinking.
• Students will articulate conceptual and visual ideas to communicate content.
• Students will demonstrate competence in the use of traditional media.
• Students will demonstrate competence in the use of digital media and emerging technologies.
• Students will demonstrate knowledge of the historical and current context of communication arts.
• Students will demonstrate ethical and professional practices.

Special requirements
A cumulative GPA of 2.5 in the major is expected for continuance in the program.

Degree requirements for Communication Arts, Bachelor of Fine Arts (B.F.A.) with a scientific and preparatory medical illustration concentration

General Education requirements

<table>
<thead>
<tr>
<th>University Core Education Curriculum</th>
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<tbody>
<tr>
<td>UNIV 111 Play course video for Focused Inquiry I</td>
<td>3</td>
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<thead>
<tr>
<th>Additional General Education requirements</th>
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<tbody>
<tr>
<td>BIOL 151 &amp; BIOZ 151 Introduction to Biological Sciences I and Introduction to Biological Science Laboratory I</td>
<td>4</td>
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<tr>
<td>BIOL 205 Basic Human Anatomy</td>
<td>4</td>
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<tr>
<td>CHEM 101 &amp; CHEZ 101 General Chemistry I and General Chemistry Laboratory I</td>
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Total Hours 12

Collateral requirements

Art Foundation Program

<table>
<thead>
<tr>
<th>Art history</th>
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<tbody>
<tr>
<td>ARTH 103 &amp; ARTH 104 Survey of Art I and Survey of Art II</td>
<td>6</td>
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Additional requirements

<table>
<thead>
<tr>
<th>BIOL 152 &amp; BIOZ 152 Introduction to Biological Sciences II and Introduction to Biological Science Laboratory II</th>
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<tbody>
<tr>
<td>BIOL 200 Quantitative Biology</td>
<td>3</td>
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<tr>
<td>BIOL 300 Cellular and Molecular Biology</td>
<td>3</td>
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<tr>
<td>BIOL 402 Comparative Vertebrate Anatomy</td>
<td>5</td>
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<tr>
<td>CHEM 102 &amp; CHEZ 102 General Chemistry II and General Chemistry Laboratory II</td>
<td>4</td>
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<tr>
<td>PHIS 206 Human Physiology and Human Physiology Laboratory</td>
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Total Hours 43

Major requirements

<table>
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<tr>
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<tr>
<td>COAR 201 Drawing Studies: The Figure Observed</td>
<td>3</td>
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<tr>
<td>COAR 202 Drawing Studies: The Figure in Context</td>
<td>3</td>
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<tr>
<td>COAR 300 Illustration: Drawing and Painting</td>
<td>3</td>
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<tr>
<td>COAR 320 Concept Drawing</td>
<td>3</td>
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<tr>
<td>COAR 321 Sequential Imaging</td>
<td>3</td>
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<tr>
<td>COAR 332 Digital Drawing</td>
<td>3</td>
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<tr>
<td>COAR 341 Scientific Illustration</td>
<td>3</td>
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<tr>
<td>COAR 352 History of Visual Communications I</td>
<td>3</td>
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<tr>
<td>COAR 353 History of Visual Communications II</td>
<td>3</td>
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<tr>
<td>COAR 407 Senior Project</td>
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<tr>
<td>COAR 450 Business of Communication Arts</td>
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</table>
or ARTS 351  
Piloting the Enterprise

COAR 464  
Senior Portfolio  3

COAR upper-level studio electives  12

**Total Hours**  48

**Total minimum requirement 124 credits**

What follows is a sample plan that meets the prescribed requirements within a four-year course of study at VCU. Please contact your adviser before beginning course work toward a degree.

**Freshman year**

<table>
<thead>
<tr>
<th>Fall semester</th>
<th>Hours</th>
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</table>
| ARTF 131  
Drawing Studio       | 3     |
| ARTF 132  
Surface Research    | 3     |
| ARTF 139  
Project          | 1     |
| ARTH 103  
Survey of Art I     | 3     |
| UNIV 111  
Focused Inquiry I  | 3     |
| Quantitative literacy course (University Core) | 3 |

**Term Hours:**  16

**Spring semester**

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</table>
| ARTF 133  
Space Research  | 3     |
| ARTF 134  
Time Studio    | 3     |
| ARTF 139  
Project       | 1     |
| ARTH 104  
Survey of Art II | 3   |
| UNIV 112  
Focused Inquiry II | 3 |
| Social/behavioral sciences course (University Core) | 3 |

**Term Hours:**  18

**Sophomore year**

<table>
<thead>
<tr>
<th>Fall semester</th>
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</table>
| COAR 201  
Drawing Studies: The Figure Observed | 3 |
| COAR 352  
History of Visual Communications I | 3 |
| COAR 300-level studio elective | 3 |
| BIOL 151  
Introduction to Biological Sciences I | 4 |
| & BIOZ 151  
and Introduction to Biological Science Laboratory I | 4 |
| Humanities/fine arts course (University Core) | 3 |

**Term Hours:**  16

**Spring semester**

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</table>
| BIOL 200  
Quantitative Biology | 3   |
| COAR 202  
Drawing Studies: The Figure in Context | 3 |
| COAR 353  
History of Visual Communications II | 3 |
| UNIV 200  
Inquiry and the Craft of Argument | 3 |
| Natural/physical sciences course (University Core) | 3 |

**Term Hours:**  15

**Junior year**

<table>
<thead>
<tr>
<th>Fall semester</th>
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</table>
| COAR 300  
Illustration: Drawing and Painting | 3 |
| COAR 320  
Concept Drawing | 3 |
| BIOL 152  
Introduction to Biological Sciences II | 4 |
| & BIOZ 152  
and Introduction to Biological Science Laboratory II | 4 |
| COAR 300-level studio electives | 6 |
| Term Hours:           | 16  |

**Spring semester**

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</thead>
</table>
| BIOL 205  
Basic Human Anatomy | 4 |
| CHEM 101  
General Chemistry I | 4 |
| & CHEZ 101  
and General Chemistry Laboratory I | 4 |
| COAR 332  
Digital Drawing | 3 |
| COAR 341  
Scientific Illustration | 3 |
| PHIS 206  
Human Physiology | 4 |
| & PHIZ 206  
and Human Physiology Laboratory | 4 |

**Total Hours:**  124

**COAR 200. Visual Studies: Drawing. 3 Hours.**

Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: ARTF 131. A course in drawing from direct observation of specific references: visual analysis, surface light and color, structure, and context. Various painting and drawing media will be explored. Assignments will incorporate applicable references to the history of art and contemporary developments.

**COAR 201. Drawing Studies: The Figure Observed. 3 Hours.**

Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: ARTF 131. Enrollment is restricted to communication arts majors. Students will study and explore how to draw from direct observation using the figure as the primary means to understand proportion, volume and spatial relationships. Class will include skeletal structure, basic anatomy and physical aspects of the figure. Various drawing and painting media will be explored. Specific assignments will be informed by the reference and use of the figure in the history of art and contemporary developments.
COAR 202. Drawing Studies: The Figure in Context. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: ARTF 131. Enrollment restricted to communication arts students. Drawing from direct observation using the figure as the primary means to understand proportion, volume and spatial relationships. Specific problems will include the figure as a dynamic element in different lighting, spatial and conceptual contexts. Various drawing and painting media will be explored. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 210. Visual Studies: Design. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: ARTF 132 and 133. A course in which an understanding of the relationship between form and communication is developed. The student will develop an awareness and appreciation for visual imagery as a tool for the transmission of information and ideas.

COAR 211. Fundamentals of Typography. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: ARTF 132. An introduction to the study of typography as used in communication arts. Course will include the study of hand-drawn and digital letterforms and their context. Students will be introduced to professional digital methods (e.g., Illustrator).

COAR 300. Illustration: Drawing and Painting. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 202. Explores and addresses formal, conceptual and technical considerations and issues involved in the use of drawing and painting. Various drawing and painting media will be explored.

COAR 301. Drawing Studies: The Figure (Intermediate). 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. May be repeated for up to 6 credits. Prerequisite: COAR 201. Drawing from direct observation at the intermediate level using the figure as the primary means to understand proportion, volume and spatial relationships. Various drawing and painting media will be explored.

COAR 302. Print Media. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 202. An intermediate course in the use of printing processes and techniques to develop communicative imagery. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 303. Color Theory and Practice. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 300. An intermediate course in the application of color theory to specific illustrative problems. A number of color theories, both historical and contemporary, will be studied and applied.

COAR 304. Illustration Media and Techniques. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 200 and 202. Explores various mixed-media techniques, including both two- and three-dimensional approaches to illustrative problems.

COAR 305. Figure in Illustration. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 202. An introduction to the visual representation of the human form as it applies to illustration.

COAR 307. The Face. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 201 and COAR 202. Employing a variety of drawing media, students will explore the nuances of the human face as a subject. This course focuses on both process and the realization of final projects.

COAR 311. Type and Image. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 211. An advanced course that explores graphic design with an introduction to digital methods as a means to express and communicate ideas. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 312. Art Direction. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 210 and COAR 211. An introduction to the creative and logistical concerns of art direction, with special focus on the methodological best practices for developing compelling visual concepts, organizing work flow and arriving at unique design solutions. The course includes an introduction to professional-level digital tools and their relevant application.

COAR 320. Concept Drawing. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 202. Explores the use of drawing as a tool to communicate concepts. Various painting and drawing media will be explored. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 321. Sequential Imaging. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: junior standing in communication arts. Sequential imagery as applied to books, graphic novel and film storyboarding. Various painting and drawing media will be explored. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 325. Botanical Drawing. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 300. This course explores plant life from direct observation and analytical drawing. Students examine the major divisions and structures of plants and how to depict their unique form.

COAR 326. Imagery for Science Fiction and Fantasy. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 300 and 320. This course focuses on assignments for science fiction/fantasy subject matter and its various commercial applications.

COAR 327. Comics and Graphic Novels I. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 201 and COAR 202. This course develops skills essential for visual storytelling through comics and graphic novels.

COAR 328. Comics and Graphic Novels II. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 327. This course further develops skills essential to expanding understanding of visual storytelling through comics and graphic novels.

COAR 331. Photographic Principles in Visual Communications. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 210. A studio course that explores the use of the camera, from pinhole photography to digital imaging, and includes the introduction of digital methods (e.g., Photoshop) as tools used in visual communications.

COAR 332. Digital Drawing. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 201 and COAR 202. An intermediate course exploring the use of computer and peripheral devices in the creation of personal work. Students will be introduced to relevant conceptual themes and professional methods and practices.
COAR 333. Web Page Design. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 210, COAR 211 and permission of instructor. A course developing the design of websites. Emphasis is placed on the visual design, navigation, development, communication and authoring of websites.

COAR 341. Scientific Illustration. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Corequisite: COAR 202. An introductory course in the development of accurate representational imagery for recording scientific observations and ideas.

COAR 352. History of Visual Communications I. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: ARTH 103 and 104. An examination of the historical developments in visual communications from cave paintings to modernism.

COAR 353. History of Visual Communications II. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: ARTH 103 and 104. An examination of the historical developments in visual communications from modernism to the contemporary era.

COAR 391. Communication Arts Topics. 1-3 Hours.
Semester course; 1-3 lecture hours. 1-3 credits. May be repeated for a maximum of 12 credits. Topical lectures in design issues and visual communications.

COAR 392. Research/Individual Study. 1-6 Hours.
Semester course; 1-2 lecture and 3-6 studio hours. 1-6 credits. May be repeated for a total of 6 credits. Enrollment requires permission of instructor, approval of faculty adviser and chair. The structuring, research, execution and presentation of an independent project in visual communications under the direction of a faculty adviser. The student will be encouraged to become a self-generating problem seeker and solver with the ability to carry out self-stated goals.

COAR 401. Drawing Studies: The Figure (Advanced). 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 301 or permission of instructor. Drawing from direct observation at an advanced level using the figure as the primary means to understand proportion, volume and spatial relationships. Various drawing and painting media will be explored.

COAR 407. Senior Project. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 300 and COAR 320. Enrollment restricted to students with senior status in communication arts. Focuses on the assessment and advancement of studio techniques, methods and practices. Students document and share their decision-making processes in the generation of creative projects.

COAR 420. Graphic Essay. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: UNIV 200 or HONR 200 and COAR 320. An advanced course that explores the relationship between text and image, and their potential as tools to enable us to create and communicate effectively. Assignments will incorporate applicable references to the history of art and literature.

COAR 421. Imagery for Children. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 300 and 320. An advanced course developing both fiction and nonfiction illustrations intended for the preschool and elementary school children's publishing market.

COAR 422. Editorial Illustration II. 4 Hours.
Semester course; 3 lecture and 3 studio hours. 4 credits. Prerequisites: COAR 300 and 320. An advanced course developing the student's skill at interpreting an author's manuscript. The major emphasis is given to illustrations appearing in books and magazines.

COAR 432. 3-D Image and Movement. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Course restricted to majors in the School of the Arts. Course addresses current technological tools to explore the relationship between image, object and movement.

COAR 433. Game Design, Theory and Practice. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 432. Students will study the history, theory and design of games, gaming concepts and narrative from past to present.

COAR 435. Organic 3-D Modeling for Concept Design. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 432. A focus on the use of high polygraph 3-D graphics software as tools to create highly detailed computer models for concept design, movies, broadcast media and games.

COAR 441. Scientific Illustration II. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisite: COAR 341. An advanced course in the development and creation of accurate documentation and representation of scientific information and imagery including plant taxonomy, insect morphology, and physiological and pathological processes.

COAR 450. Business of Communication Arts. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: UNIV 200 or HONR 200. The study of business management with an emphasis on ethics and the standards of fair practice including financial and contractual guidelines.

COAR 462. Projects in Illustration. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: senior standing in communications arts and permission of the instructor. An advanced-level course in conceptualization, execution, realization and documentation as realized through a series of projects in illustration. Students will be required to create, acquire and structure projects that will test their conceptual and technical abilities. Project work will be exhibited, documented or printed. Various drawing, painting and mixed media will be explored. Assignments will incorporate applicable references to the history of art and contemporary developments.

COAR 463. Communication Arts Honors Studio. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. May be repeated for up to 12 credits. Prerequisites: junior standing in communication arts, 3.0 GPA and permission of the CA faculty. An advanced course for selected students. Expectations include to work on individual and group projects at a professional level.

COAR 464. Senior Portfolio. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. Prerequisites: COAR 300 and COAR 320. Enrollment restricted to students with senior status in communication arts. Focuses on the curation and evolution of a portfolio that aligns with the student's professional goals. Integrates effective oral, written and visual communication, critical-thinking and advanced studio and professional practices.

COAR 491. Studio Topics in Communication Arts. 3 Hours.
Semester course; 2 lecture and 3 studio hours. 3 credits. May be repeated for credit. Topical studio focusing on research and experimentation in specialized visual communication media.

COAR 492. Communication Arts Internship. 1-6 Hours.
Semester course; 1-6 credits. May be repeated for a maximum of 12 credits. Prerequisites: senior standing, 3.0 GPA or permission of the chair. Supervised pragmatic work experiences. Training is provided under the direction and supervision of qualified professional practitioners.