

# BIOLOGICAL/PRE-MEDICAL ILLUSTRATION

The interdepartmental undergraduate BPM I major is designed for students who want to combine their interests and aptitudes in science and art. Based on the theme of "communicating science through art," the major prepares students for careers in biological illustration or for graduate education in medical illustration elsewhere. Graduates enter fields such as biocommunications, environmental display design, freelance illustration, museum display design, and various careers in the publishing industry.

Entrance into the BPM I program is by application to the BPM I Advisory Committee. Eligibility is based on an academic standard of at least 2.00 CGPA on 30 credits of university level work and a consideration of artistic ability as demonstrated through submission of a portfolio of representative drawings or other art work. Freshman and transfer students usually declare pre-BPM I as their major while satisfying the conditions for entrance into the major, although other majors can be declared.

To earn the B.A. degree offered by the College of Liberal Arts and Sciences, students must complete the general education requirements in that college and take at least 41 credits in design and 32 credits in the biological sciences.

Design courses	29
DSN S 131	Design Representation
ARTIS 230	Drawing II
ARTIS 233	Watercolor Painting
ARTIS 308	Computer Modeling, Rendering and Virtual Photography
ARTIS 330	Drawing III: Life Drawing
BPM I 323	Scientific Illustration Principles and Techniques
BPM I 326	Illustration and Illustration Software
BPM I 327	Illustration as Communication
BPM I 337	Application of Scientific Illustration Techniques
BPM I 497	Illustration Internship
12 credits chosen from a list of approved upper level courses in art and design	12
Biological Science courses	24
LAS 101	Orientation for Open Option and Preprofessional Students
BIOL 211	Principles of Biology I
BIOL 211L	Principles of Biology Laboratory I
BIOL 212	Principles of Biology II

BIOL 212L	Principles of Biology Laboratory II	
BIOL 255	Fundamentals of Human Anatomy	
BIOL 256	Fundamentals of Human Physiology	
BIOL 351	Comparative Chordate Anatomy	
One of the following		3
BIOL 356	Dendrology	
BIOL 366	Plant Systematics	
BIOL 454	Plant Anatomy	
9 credits chosen from a list of approved biological science courses		9

Chemistry and Mathematics are also required as supporting courses. Students must earn a grade of C- or better in all art and science courses included in the major and must earn a cumulative GPA of 2.00 in both categories. A brochure is available in 102 Catt Hall that gives a detailed listing of the requirements.

Communication Proficiency Requirement: Students must have credit for ENGL 150; earn a C or better in ENGL 250 or equivalent composition courses; and earn a C or better in one advanced writing course numbered ENGL 302 through ENGL 316.

Students in BPM I must complete a senior project or an internship experience (BPM I 497) in which they design and produce artwork that is suitable for publication or public display.

A minor in biological illustration is offered. A minimum of 17 credits must be taken, including 8 credits in biological science courses and 9 credits in art and design courses.

The biological sciences must include:

BIOL 211	Principles of Biology I	3
BIOL 211L	Principles of Biology Laboratory I	1
BIOL 212	Principles of Biology II	3
BIOL 212L	Principles of Biology Laboratory II	1

The art and design courses must include:

BPM I 323	Scientific Illustration Principles and Techniques	3
BPM I 337	Application of Scientific Illustration Techniques	3
Advanced drawing, illustration, electronic media or painting course		3

For more information, contact the BPM I adviser in 102 Catt Hall or view the website listed above.

## Biological/Pre-Medical Illustration, B.A. 120 minimum credits required.

### Freshman

Fall	Credits Spring	Credits
LAS 101	1 LIB 160	1

ENGL 150	3 Humanities	3
CHEM 163	4 BIOL 212	3
CHEM 163L	1 BIOL 212L	1
BIOL 211	3 ARTIS 230	3
BIOL 211L	1 Soc Sci Choice	3
DSN S 131	4 CHEM 231.231L or STAT or MATH	3-4

---

17 17-18

**Sophomore**

Fall	Credits Spring	Credits Summer	Credits
Foreign Lang. or Humanities (ART 280)	3-4 For Lang or Social Sci	3-4 Consider study abroad or attending summer GNSI Workshops or a Biological Station to take advanced Biology Courses	
CHEM 231/231L or STAT or MATH	3-4 BPM I 326	3	
BPM I 323	3 ARTIS 330	3	
ENGL 250	3 Humanities	3	
BIOL 255	3 BIOL 256	3	

---

15-17 15-16 0

**Junior**

Fall	Credits Spring	Credits
BPM I 327	3 BPM I 337	3
Advanced Biology	3-4 BIOL 351	5
ARTIS 308	3 Soc Sci	3
Humanities or Social Sci	3 ARTIS 233	3

Advanced Biology or Art or plant science Work with BPMI advisory committee to plan senior project for portfolio If planning to attend graduate school, take GRE in Fall and prepare up to 20 portfolio pieces for submission in January	3 Humanities and Advanced Art	3
--	--	---

---

15-16 17

**Senior**

Fall	Credits Spring	Credits
Advanced Biology	3-5 Advanced Biology	3-4
Advanced Art	3-6 Advanced Art	3-6
Humanities/ Social Elective	3 Humanities/ Social Sci/ Elective	3-6
BPMI 497	1 ENGL 302-316	3
Electives	2	

---

12-17 12-19

**Courses primarily for undergraduates:**

**BPM I 323: Scientific Illustration Principles and Techniques**

(Cross-listed with ARTIS). (0-6) Cr. 3. Repeatable.

*Prereq: 6 credits in art and design and 3 credits in biological sciences*  
Studio basics and professional techniques in black & white, continuous tone, and color. Emphasis on tools, materials, and rendering.

**BPM I 326: Illustration and Illustration Software**

(Cross-listed with ARTIS). (0-6) Cr. 3. Repeatable.

*Prereq: ARTIS 323*

Application of painting, drawing, and image making techniques to communication. Development of technical abilities using illustration software. Digital and print production techniques.

**BPM I 327: Illustration as Communication**

(Cross-listed with ARTIS). (0-6) Cr. 3.

*Prereq: ARTIS 326*

Studio problems in illustration emphasizing composition and communication. Problem solving methodologies.

**BPM I 337: Application of Scientific Illustration Techniques**

(Cross-listed with ARTIS). (0-6) Cr. 3. Repeatable, maximum of 6 credits. S.

*Prereq: ARTIS 327*

Rendering techniques applied to different types of biological and scientific subjects emphasizing communication. The use of traditional and digital media. Term project required.

**BPM I 395: Field Illustration**

Cr. 1-3. Repeatable, maximum of 6 credits. S.SS.

*Prereq: Permission of instructor*

A combination seminar and field trip course emphasizing nature interpretation, field sketching techniques and preparation of a final illustration based on field experience.

**BPM I 398: Cooperative Education**

Cr. R. F.S.SS.

*Prereq: Permission of the program cooperative education coordinator, junior classification*

Required of all cooperative education students. Students must register for these courses prior to commencing each work period.

**BPM I 435I: Illustrating Nature I Sketching**

(Cross-listed with IA LL). Cr. 2. SS.

Sketching plants, animals and terrain. Visual communication, development of a personal style, and integration of typographic and visual elements on a page will be emphasized.

**BPM I 436I: Illustrating Nature II Photography**

(Cross-listed with IA LL). Cr. 2. SS.

Beginning to intermediate technical and compositional aspects of color photography of natural areas and their plants and animals.

**BPM I 490: Independent Study**

Cr. 1-3. Repeatable, maximum of 3 credits.

*Prereq: Written approval of instructor and advisory committee chair on required form in advance of semester of enrollment*

**BPM I 494: Special Topics in Illustration**

Cr. 1-3. Repeatable.

Intensive exploration of illustration techniques in a studio or field setting.

**BPM I 497: Illustration Internship**

Cr. 1-6. Repeatable, maximum of 6 credits.

*Prereq: Junior or senior classification in BPM I, written approval of supervising instructor and advisory committee chair on required form in advance of semester of enrollment*

Offered on a satisfactory-fail basis only.