

## Fall 2019 Introduction to Scientific Illustration with Mindy Lighthipe

**ART 2936C & ART 3930C-** (3 credit hours) is an introductory course to Scientific Illustration, providing students the opportunity to acquire skills of observation while illustrating a wide range of organisms. Students explore the unique ecosystems of Florida and the multitude of species of flora and wildlife. Exploration may include plants, birds, insects, mushrooms, reptiles, fish, amphibians and mammals. Scientific Illustration offers students the opportunity to observe, study, analyze, and visually illustrate species. The skills taught in this course will further expand knowledge to offer career options in the biological workplace.

In collaboration with the Florida Museum of Natural History, the UF Natural Area Teaching Lab and the Harn Museum students enrolled in this class will have the opportunity to work from the vast collections at UF.

### Instructor's contact info:

Mindy Lighthipe

<http://www.MindyLighthipe.com>

Students may contact Mindy via email at:

[MLighthipe@arts.ufl.edu](mailto:MLighthipe@arts.ufl.edu)

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### Course objectives:

- Familiarity with the field of Scientific Illustration and its history.
- Improvement in the observation, appreciation, and analysis of the natural world.
- Learning principles of illustration such as layout design, sketching, research processes, development of ideas, and effective science communication.
- Learning techniques that are currently being used in digital media as well as traditional applications.

### Prerequisites:

None, all skill levels are welcome.

### Method of instruction:

Each class will be a combination of lectures, discussion, demonstrations of art techniques, study of illustrations, group and individual critiques, and individual work on illustrations. We will also visit the Harn Museum of Art, the Florida Museum of Natural History, and the Florida Natural Area Teaching Lab during the course.

### Attendance policy:

This is a **STUDIO CLASS**, therefore students **MUST** be present in the classroom for the entire class period and for every class. Attendance is expected and mandatory, so you need to bring a signed medical excuse if you are sick and can't come to class.



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Please be aware of the attendance rules:

a. One unexcused absence is allowed. A second will drop your final grade one grade, and third will drop your final grade two grades. Four or more absences will result in not passing the course.

b. Since most of the important information about the assignments for each class will be given in the first 15 min of the class, tardiness will also affect your final grade in the following way: being more than 15 min late or leaving class early 3 times will constitute one absence.

c. There will be no make-ups for this class; if students miss classes they are responsible for completing the class assignments on their own and handling them in time.

## Assignments:

Class assignments will be given every week, and class time will be used for working on these assignments, although additional time outside the class may be needed for completing each illustration. Due dates will be announced at each class. Assignments submitted after the due date will be downgraded 10 points for each week it is late. Illustrations will be evaluated on:

a. **Communicative Ability:** Assignments must be effective at communicating a specific scientific concept, as this is the main purpose of scientific illustration. Examples of concepts are natural processes, species identification, laboratory procedures, and form and function. You will be required to illustrate each assignment for a specific target audience. A full explanation and discussion is presented in class.

b. **Accurate Drawing:** Each assignment needs to be informative and representational. Therefore, a level of accuracy in the drawings should show the subject in proper proportion, scale, color and detail.

c. **Research:** Every assignment must be the result of a process of research and should communicate specific ideas and concepts. For this class, this process may be even more important than the final result, as the main purpose is to learn to observe, study and be able to visually illustrate different components of nature.

d. **Execution & Technique:** Each assignment must be clean and well presented. Each assignment should display the proper usage of each technique taught in class.



## Suggested reading materials:

1. The Handbook of Scientific Illustration. 2003. Edited by Elaine R. S. Hodges, with Steve Buchanan, John Cody, and Trudy Nicholson. John Wiley & sons, Inc. New Jersey, USA.

2. Amazing Rare Things: The Art of Natural History in the Age of Discovery. David Attenborough, Susan Owens, Martin Clayton, and Rea Alezandratos.

3. Manual of Scientific Illustration. Charles S. Papp. 1976. American Visual Aid Books. Sacramento, California, USA.

## Suggested online resources:

Guild of Natural Science Illustrators: [www.gnsi.org](http://www.gnsi.org)

Scientific Illustration Consortium: [www.scientificillustration.org](http://www.scientificillustration.org)

Science + art: [www.science-art.com](http://www.science-art.com)

Science and art: [www.sciencefriday.com/arts/](http://www.sciencefriday.com/arts/)

Association of Illustrators: [www.theaoi.com](http://www.theaoi.com)

Every picture tells a story: [www.everypicture.com](http://www.everypicture.com)

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The science picture company:  
[www.sciencepicturecompany.com](http://www.sciencepicturecompany.com)

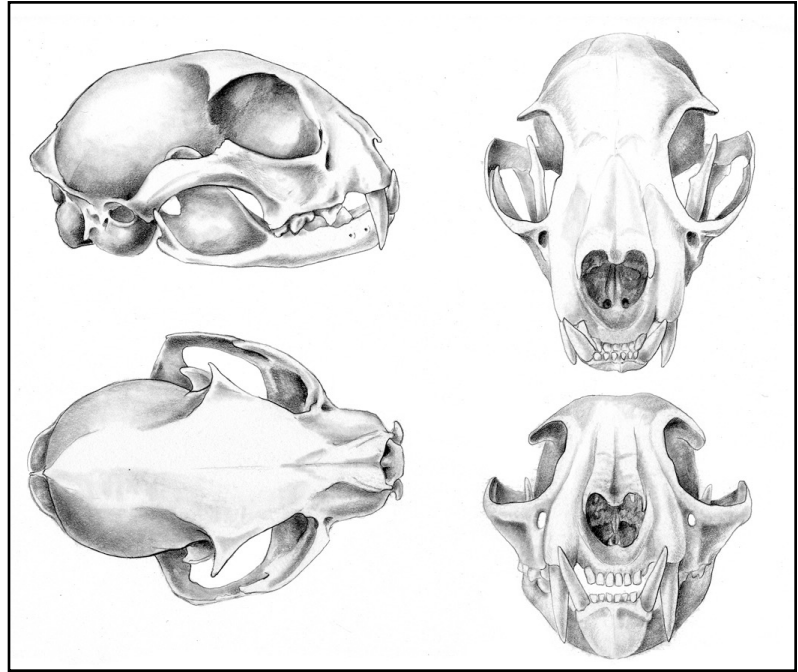
## Grading:

Grades will be based on the following:

Class Participation	20%
Class Assignments	60%
Final Project	<u>20%</u>
	100%

## Grades-

95%- 100%	(4.0) A
90%-94%	(3.67) A-
86%- 89%	(3.33) B+
85%	(3.0) B
80%-84%	(2.67) B-
79%- 76%	(2.33) C+
75%	(2.0) C
70%-74%	(1.67) C-
66%- 69%	(1.33) D+
65%	(1.0) D



In this course students will be exposed to the following Skills, Techniques and Subjects.

## Skills Taught:

- Perspective, measuring, and accurate drawing related to scientific illustration
- Specific light source used in scientific illustration
- Dissection of specimens and how to effectively illustrate them on a illustration plate
- Working from Photography

## Techniques Taught:

- Graphite
- Pen & Ink
- Colored Pencil

## Subjects:

- Bones & Fossils
- Plant Morphology and Botanical
- Insects- Butterflies, Beetles
- Shells
- Mammals- Taxidermy and skins
- Amphibians & Reptiles
- Birds- Taxidermy and skins

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## **Final Project/Exam:**

At the end of the semester the students do a final project of their choice using any of the techniques and subjects pertaining to Natural Science Illustration.

This project is the last class of the semester. **There is no final exam.**

**Students with Disabilities-** Anyone who is requesting classroom accommodation must register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this document to the Instructor when requesting accommodation.

**Health and Safety** Here is a link and information regarding the SA+AH H&S policy and handbook for Health and Safety in the Art Studio. (<http://www.arts.ufl.edu/art/healthandsafety>)

## **Art Supply List- \*To be purchased by the 2nd class.**

**All other supplies will be discussed in class and information on where to purchase them.**

- \*1 Strathmore drawing pad 9 x 12 . Series 400.... NOT SKETCH
- \*1 pad of tracing paper or tracing vellum, same size as pad or smaller. Canson Vidalon Vellum Each 50-sheet pad is tape-bound on the short side for easy removal of pages. Sheets are 55 lb (90 gsm) weight. This is my preference.
- \*Variety of Drawing Pencils. 2H, HB, 2B.
- \*Assortment of erasers: white plastic, and pink pearl
- \*1 small clear plastic 6" ruler
- \*1 roll of Artist's Repositionable Tape
- \* Eraser Shield

The following supplies will be provided in class as well as a variety of art papers.

- TORTILLIONS/MEDIUM PK4 CRD- Paper Stumps for blending
- Hunt crow quill pen holder + nib (not calligraphy nibs)- Nib 102

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- FW Acrylic Ink or Speedball India Ink-- waterproof
- Micron Pen .03 or Copic Multiliner .03 or .025 Black only

The best pencil sharpener is the Rapesco 64 or 74 hand held sharpener. It can be purchased on Amazon at:

[https://www.amazon.com/Rapesco-Pencil-Sharpener-Black-R64000B2/dp/B000JTK9AS/ref=sr\\_1\\_1?ie=UTF8&qid=1534006059&sr=8-1&keywords=Rapesco+64+sharpener](https://www.amazon.com/Rapesco-Pencil-Sharpener-Black-R64000B2/dp/B000JTK9AS/ref=sr_1_1?ie=UTF8&qid=1534006059&sr=8-1&keywords=Rapesco+64+sharpener)

Supplies can be purchased online at <http://www.DickBlick.com>. There is a complete list of supplies at this link:

<http://www.dickblick.com/lists/blicku/H3RHXKLBSV6XY/items/>

**You may also find the supplies at:**

### **Michael's**

3644 SW Archer Rd

Gainesville, FL 32608-2420

Phone: (352) 377-9797

Mon-Sat: 9:00am - 9:00pm

Sun: 10:00am - 7:00pm