

**Lyme Art Association  
Hannah Cohen  
Invertebrate Anatomy for Artists  
Tuesdays from 530p-8p EST, March 17 - May 5**

Invertebrates are the oldest and most numerous animals on the planet! Their body structures differ significantly from vertebrates', and they are highly diverse and varied. This course will explore invertebrates through an illustrator's eye, emphasizing the relationship between form and function. Each week, we will cover one or more major groups of invertebrates, learning about their anatomy, their life cycles, and the environmental niches they occupy. We will apply this knowledge to create beautiful, detailed, and anatomically correct illustrations!

This course meets over Zoom. Each week will feature a lesson on the week's topic and a demonstration. Each week's homework assignment will be the same - to choose a specific species belonging to the groups covered during that week's lesson and to draw it to the best of your ability in the medium of your choice.

**I strongly encourage you to complete assignments, but most of all I encourage you to do so only to the best of your ability and only with whatever time you have - this is meant to be educational, not stressful!** At the beginning of each class, we will go over the last week's homework with a short critique, so that we can appreciate and learn from each other's work.

Invertebrate anatomy is a simply massive topic and, unlike my prior courses, **this course will not feature a final project.** We will spend the first seven weeks learning about different groups of invertebrates and producing homework pertinent to each week's subject matter. Our last class will feature demonstrations based on what you'd like to see more of, as well as some further information about diagramming.

Students of all experience levels are more than welcome. **Once you've registered for class, please send me an email at [deepgreenravine@gmail.com](mailto:deepgreenravine@gmail.com) and tell me a little bit about your artistic practice!** I'd like to know what level you're working at, what you're interested in, and what medium / media you'd like to use. I will primarily demonstrate in graphite and in colored pencil; however, if you prefer watercolor, for example, I can absolutely add some demonstrations in watercolor. If you have any accessibility needs, please let me know about those as well.

**Note that we may refer to dissection photos throughout the course of the class. If this is an issue for you, please notify me.**

**Week 1: Introduction / Sponges, Cnidarians, and Bryozoans**

Taxonomy and the evolution of invertebrates  
Sponges, cnidarians (jellyfishes, corals, and anemones), and bryozoans  
How to find reference images  
Color matching

**Week 2: Echinoderms, Sea Spiders, Horseshoe Crabs, and Crustaceans**

Echinoderms (starfishes, sea urchins, sea cucumbers, and feather stars)  
Sea spiders  
Horseshoe crabs  
Crustaceans (barnacles, crabs, lobsters, and shrimp)

**Week 3: Mollusks**

Bivalves, chitons, and tusk shells  
Gastropods (snails, slugs, and sea slugs)  
Cephalopods (squids, cuttlefishes, and octopi)

**Week 4: Insects 1**

Hemiptera (“true bugs”)  
Odonata (dragonflies and damselflies)  
Diptera (flies)  
Ephemeroptera (mayflies)  
Neuroptera (lacewings)

**Week 5: Insects 2**

Hymenoptera (ants, wasps, and bees)  
Orthoptera (crickets and grasshoppers)  
Mantodea (mantids)  
Phasmatodea (stick and leaf insects)

**Week 6: Insects 3**

Lepidoptera (butterflies and moths)  
Coleoptera (beetles)

**Week 7: Creepiest Crawlies**

Arachnids (spiders and scorpions)  
Myriapods (millipedes and centipedes)  
Worms (flatworms, roundworms, segmented worms, and velvet worms)

**Week 8: Diagramming and Further Demonstrations**

Below is a **suggested materials list** featuring supplies that I like and use regularly. If you already own supplies that you use and are comfortable with, those are perfect; if you are newer to your practice and need recommendations for supplies, or if you're looking to expand your collection, this list is for you. Get whatever you can / whatever you'd like to use.

If you're not already well-acquainted with your local art supply, now is a great time to go have a look! For online shopping, Jerry's Artarama, St Louis Art Supply, and Blick are great options. (Jerry's in particular tends to ship a little slowly, so be aware of that.)

### **General supplies:**

- A blank sketchbook with drawing paper for note-taking and loose sketches, at least 9x12 (consider how large you'd like to work; if you choose a larger size, make sure that your tracing paper and any other papers you buy are also that size - it will make everything easier!)
- Ruler
- Pencils and a pencil sharpener of your choice if applicable
  - If you like wood pencils, I recommend a sketch set of 12 Prismacolor Turquoise drawing pencils, which includes hardnesses 4B, 3B, 2B, B, HB, F, H, 2H, 3H, 4H, 5H, and 6H. (This is different from the art set - please make sure you get the sketch set.) You can also buy individual wood pencils if you don't want all 12.
  - If you like mechanical pencils, I recommend 3-5 mechanical pencils containing 0.5 size leads of varying hardnesses (for example, 4B, 2B, HB, 2H, and 4H).
- A white plastic eraser. You can get a block eraser, but I prefer the pencil-shaped mechanical erasers - I'd highly recommend the Factis mechanical eraser made by General's or the Staedtler Mars plastic retractable stick eraser. Make sure to get refills!
- A 9x12 (at least) pad of tracing paper
- Any reliable source of white-toned lighting (good natural light, a desk lamp, etc)

### **If you'd like to work in graphite and / or colored pencil:**

- A 9x12 (at least) pad of Strathmore 300 series Bristol paper and / or a 9x12 (at least) pad of Stonehenge White paper
- Artist quality colored pencils of your choice. If you already have pencils, that's great! I personally prefer Faber-Castell's Polychromos pencils, which are oil-based. Prismacolor's pencils are wax-based, and give a different feel. If possible, stop in to a local art supply and try a couple of each out. If you're new to colored pencil, invest only as far as you feel comfortable; sets run from 12 to 120 pencils! **If you have questions about what to buy, please don't hesitate to send me an email.**
- If you'd like to experiment, pick up a 9x12 (at least) pad of Graft Duralar film in two-sided matte finish

### **If you'd like to work in pen:**

- A 9x12 (at least) pad of Strathmore 300 series Bristol paper and / or a 9x12 (at least) pad of Stonehenge White paper
- Molotow Blackliner pens in the following sizes: .8, .4, .2, .1, and .005. These are much better than Microns, and they're worth hunting down; if Microns are all you can find, those will work as well. No matter which brand you pick, **I strongly recommend buying a couple pens of each size, particularly for the smaller sizes.**

**If you'd like to work in watercolor and / or gouache:**

- A 9x12 (at least) block of Fluid Hot Press watercolor paper
- Princeton Velvetouch short-handled watercolor brushes in as many of the following shapes and sizes as you can find: Round sizes 8, 4, 2, 1, and 3/0, and Liner size 10/0
- Richeson Grey Matters palette paper
- Cup(s) for water
- Paper towel
- Artist quality paints of your choice. If you already have paints, that's great! If you're just starting out, I'd recommend Winsor & Newton - their Cotman paints are student quality, so they're a little less pricey. They also make professional watercolors, and good gouache. Other higher-end paint brands include Daniel Smith and Holbein. **If you want to work in paint, please reach out to me so that we can figure out what makes the most sense for you!**

**We will not use a textbook.** Presentations and Zoom recordings will be available for you to refer back to. I will happily help direct you to informational resources if need be! If you're the type of person who prefers books, I can also make recommendations.

This list may feel overwhelming, but the class will not be! I am here to support you as we draw together. If you have any questions or concerns, again, please feel free to reach out to me at any time.