THTR 409 ADVANCED DRAFTING: VECTORWORKS
Fall 2018—Wednesday—2:00-4:50pm
Location: Design Lab

Instructor: Elizabeth Harper
Office: JEF 203
Office Hours: Monday, Wednesday, Friday, 12-1pm
Please always make an appointment.
Contact Info: (310) 729-0082, heilich@usc.edu

Course Description and Overview

Advanced Drafting: Vectorworks uses a combination of lectures, in-class lab time and take-home projects to explore the various 2D and 3D tools in Vectorworks. These tools will then be used to communicate design ideas and collaborate. The class places an emphasis on using the Vectorworks tools created specifically for the lighting industry and on its interface with Lightwright to create complete drafting and paperwork packages.

Learning Objectives

Our goal is to learn to use Vectorworks software to craft and document designs in 2D and 3D. We will learn a system of working that facilitates collaboration in an organized and structured way. We will also explore graphic design and clarity of information in lighting plots and the industry-standard accompanying paperwork.

Prerequisite(s): THTR 130, THTR 131
Co-Requisite (s): None
Concurrent Enrollment: None
Recommended Preparation: None

Required Materials

Vectorworks 2018 (installed in the design lab or free at https://student.myvectorworks.net/)
Lightwright 6 (installed in the design lab or $135 at
http://www.mckernon.com/lightwrightmenu/lw6purchasing.html)
Architect's scale ruler
Protractor

Supplementary Materials

Savvy Subscription Series ($29/year at https://www.benghiatlighting.com/software/products)

Description of Grading Criteria and Assessment of Assignments

All projects are worth 100 points and will be graded based on technical skill, craftsmanship, completeness, and effort as applicable. Class participation will be graded based on the student's willingness to ask questions and make progress during in-class work time. All projects will be evaluated via the attached rubrics and returned.

The final course grade is based on the following point scale:
  A = 100-96%, A- = 95-90%
  B+ = 89-86%, B = 85-84%, B- =83-80%
  C+ = 79-76%, C = 75-74%, C- =73-70%
  D = 69-56%
  F = 55% or below

Incomplete assignments lose 10 points (1 grade letter) per day until they are submitted. Questions about assignments must be discussed with the instructor prior to the due date.

Grading Scale for SDA: A indicates work of excellent quality; **B** of good quality; **C** of average quality; **D** of below average quality; and **F** indicates inadequate work.

Grading Breakdown

Unexcused absences are strongly discouraged. Missed classes due to an unexcused absence will not be retaught even with an appointment. To request an excused absence, contact me by phone (text or call) or email a minimum of 24 hours prior to class or provide a doctor's note.

  • Attendance will be taken at the top of every class.
  • Arriving more than ten (10) minutes late without prior notification will
  be considered tardy.
  • Three (3) tardy arrivals constitute an unexcused absence.
  • All work must be completed regardless of absences.

Note that class participation is factored into the rubric for each project.

Assignment	Points	% of Grade
Cartoon cat	100	5
Scaled logo	100	5
Lighting symbol	100	5
Importing drawings	100	5
2D Scenery	100	10
3D Scenery	100	10
ASK Theatre Drawing	100	10
ASK Plot	100	5
ASK Titleblock	100	10
ASK Section	100	10
ASK Paperwork	100	5
ASK Magic Sheet	100	10
ASK Final Package	100	10

Assignment Submission Policy
All assignments are to be printed out (if necessary) and handed in during class. In case you are absent, all non-lab work must be handed in by the usual due date at the beginning of class (excused or unexcused). For lab work, you must schedule a time to present your project to me as soon as possible, no later than the day of the missed class. Failure to do this will mean the assignment will be late and subject to the usual penalties.

Additional Policies
Please turn off cell phones during the class session.

Course Schedule: A Weekly Breakdown

Week 1: Aug. 22   **Lecture:** How to set up a file, file naming standards, backing up your work, workspaces, tool palettes, snapping, classes and layers.

                         Assignment: No assignment. In-class drawing set up.

Week 2: Aug. 29   **Lecture:** How to use basic drawing tools. Snapping, selecting, drafting aids, line types, fills, patterns and hatches.

                         Assignment: Drawing a cartoon cat.

Week 3: Sept. 5   **Lecture:** How to draw in scale. Measuring and dimensioning in the drawing, scaling objects, paper space, viewports and printing set ups.

                         Assignment: Drafting a logo.

Week 4: Sept. 12   **Lecture:** Creating groups, symbols and lighting instruments, attaching information and the object info palette.

                         Assignment: Creating a light.

Week 5: Sept. 19   **Lecture:** How to collaborate in Vectorworks by using workgroup references, the resource browser, libraries and browsing documents.

                         Assignment: Referencing outside drawings and symbols.

Week 6: Sept. 26   **Lecture:** Using objects and tool sets to draft in 2D.

                         Assignment: Drafting 2D scenery.

Week 7: Oct. 3   **Lecture:** Drafting in 3D.

                         Assignment: Drafting 3D scenery.

Week 8: Oct. 10   **Lecture:** Renderworks basics.

                         Assignment: Rendering 3D scenery.
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Week 9: Oct. 17   **Lecture:** Light plots and drafting standards, importing PDFs and images

                         Assignment: Fixing up the badly-drafted theatre.

Week 10: Oct. 24   **Lecture:** Inserting lights, positions and accessories, using label legends. Plug-in subscriptions.

                                      Assignment: The light plot.

Week 11: Oct. 31   **Lecture:** Text, labels, titleblocks, and keys.

                                      Assignment: Drafting a titleblock and key.

Week 12: Nov. 7   **Lecture:** Sectioning in 3D, using focus points and photometric calculations.

                                      Assignment: Light plot section and designing front light.

Week 13: Nov. 14   **Lecture:** Lightwright and data exchange.

                                      Assignment: Creating paperwork for the light plot.

Week 14: Nov. 21   **Thanksgiving Break**

Week 15: Nov. 28   **Lecture:** Magic sheets and assisting

                                      Final project: Final light plot, section, paperwork and magic sheets

Final Examination Date:
December 7, 2:00pm-4:00pm. Final project to be turned in via hard-copy to me AND posted to the cloud by 4pm on this date. Late finals will not be accepted.

Statement on Academic Conduct and Support Systems

Academic Conduct
Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, Behavior Violating University Standards https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students.

The Office of Disability Services and Programs http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.htmlprovides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* *http://emergency.usc.edu/*will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.