THEA 3382
Drafting and Computer Aided Design for the Stage
Jan 4 – 18 January mini semester
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Office hours by appointment

Course Description:
Drafting and Computer Aided Design is intended to familiarize the students with the equipment, application and techniques necessary to draft and render stage designs for scenery and lighting, sound, props, and applicable theatre production areas. Students will learn the terminology, techniques and receive hands on experience and evaluation of their individual assignments as a part of this course. Students will be required to draw and render projects using the computer. This course is required for all Design/ Tech Theatre majors and suitable for non-majors interested in learning the basic drawing and rendering techniques for the stage. Pre-requisite THEA 2370 Theatre Stagecraft

Objectives – Students will become proficient in using Computer Aided Design and Rendering software. Students will be able to draft and render theatre designs using the computer. Drawings will be used for construction, conceptualization and theatre presentations.

Student Learning Outcomes
Students will learn graphics for the theatre according the USITT standards
Students will demonstrate their knowledge of proper stage drafting terminology
Students will learn traditional and computer aided design techniques for the theatre and entertainment industry
Students will demonstrate their understanding of drafting through projects in design and practice in the theatre

Texts - Drafting and the Theatre, Dennis Dorn, Mark Shandra
Designer Drafting for the Entertainment World, Patricia Woodbridge
Theatre Design and Production, Gillette (used in stagecraft course)

Attendance.
3 absences allowed. Excessive tardiness will be treated as an absence
4 or more will lower your grade 1 level
Regular and on-time attendance is required to succeed in this course
Consistent tardiness will be treated as an absence
For the THEA 4396 we will meet during the semester. It is important that you

Grading
There will be daily assignments in drafting and rendering, which will be kept in a sketchpad/portfolio and/or electronic storage device. Your materials are the support for your other projects. You will be expected to keep a visual record of your ideas, drawings and projects. This resource will be graded. There will be 6 projects designed to test your knowledge and to develop your techniques for
Drafting and Computer Aided Design, drawing and rendering. The final project will be the culmination of all the projects and exercises from this course.

**Materials.**
Sketchpad 11x17 recommended, Drawing pencils and supplies, Portable storage, USB storage or other compatible electronic storage device. Instructor will provide the exact list at the beginning of the semester.

**Academic Responsibility.**
All students are expected to adhere to university policies regarding academics and codes of behavior. Students are expected to do their own work. Evidence of cheating will result in the strictest penalty, which can be enforced which will be a final grade of "F" and communication with the dean of students for further disciplinary action. It is the student's responsibility to maintain compliance with these policies.

**Faculty Responsibility**
It is to the student’s advantage to be aware of their progress in the course. At any time you would like to discuss your progress I am available during office hours or by appointment. If there are special considerations, which need to be made, please contact me directly.

**Academic Integrity**
Students are expected to do their own work. To claim another's work as one's own constitutes Plagiarism. Plagiarism would be the taking of someone else's writing, creative projects, electronic media or other assignments and turning it in as your own. Using someone else work as a template or splitting the work up between several individuals also falls under this category. Plagiarism will not be tolerated. Under university policy you can face severe consequences, which include probation or expulsion from the university. If you are found guilty of presenting someone else work as your own you will receive an F in the class and will be reported to the dean of students for further action.

**University Required information**
The following statements represent information required from the university as a part of its SACS accreditation. For more specific information on student rights and responsibilities please consult the student handbook. In all cases of special student needs or accommodations it is the student’s responsibility to utilize the campus resources in order for special considerations or accommodations to be made. Please make sure you read the handbook and consult your advisor, faculty member or department chair if there are any questions.
Notice to Students with Disabilities: Texas A&M University-Corpus Christi complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office, located in Driftwood 101, at 825-5816. If you need disability accommodations in this class, please see me as soon as possible.

**ACADEMIC ADVISING:** The College of Liberal Arts requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center is located in Driftwood 203E, and can be reached at 825-3466.

*** Grade Appeal Process. As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html). For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Grading breakdown**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Sketch book</td>
<td>100</td>
<td>A</td>
</tr>
<tr>
<td>Projects 6 @ 100</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Final project 200</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Worksheets and Exercises</td>
<td>100</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
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</tbody>
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**I. Drafting - Sketch book/Electronic Portfolio Assignments and Projects**

See calendar for dates and topics

- Evaluative drawings - Drawing exercises to check your skills
- Isometric and Orthographic drafting techniques
- US Institute for Theatre Technology Drafting standards and practices
- Using traditional drafting techniques
- Putting your work on paper

Project 1. Working drawings and plans for building your project
II. Computer Aided Design -
Transferring to CAD from hand techniques – a primer
Using Vectorworks for 2 – dimensional drawing/drafting
Using a scanner and other electronic input devices

Project 2. Transfer project 1 to CAD files

III. Using Vectorworks Workspaces – Spotlight, Mechanical, DTM
Spotlight - Using spotlight to draft light plots
Creating reports
Creating special symbols ie sound
Using USITT and other symbols
Mechanical – Creating technical drawings
DTM – Creating Terrains and Landscapes

Project 3 - Using Spotlight and others to create a sound and light plot

IV. Drafting and Drawing in 3 - Dimensions
Using the tools – Architects Workspace
Creating 3 –d objects and storing in library
Renderworks

Project 4 – Create a 3-d space and render in highlights and shadows mode
Project 5 – Rendering 3-d objects in Renderworks
Project 6 - Using Spotlight workspace to render light plots and lighting effects

Final Project

Render a 3 –d space with full color resolution, textures and lighting effects

Students are expected to participate in the class discussions and critiques and to give constructive comments, ask questions and to add to the environment by their active involvement in the course and their own training as visual artists in the theatre.

Drafting and CAD
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4-Jan Orientation Drafting by Hand 12:00 - 2
Vectorworks orientation 2:00 -4

7-Jan Drafting by Hand
USITT Drafting Conventions
Ground plans and drafting plates
Wilson & Warren Theatre drafting project
Draft a set and plans from a Model Assignment
8-Jan  Creating a drawing packet for a show
       Draft a set Ground plan
       Lighting Graphics
       Elevations & Detail Drawings

9-Jan  Ground plan   Line sets and flying schedule
       Drafting drops and flying scenery
       Working drawings for rigging

10-Jan Engineering drawings
       Stage machinery - drafting an elevator or lift
       Tracking and other stage machinery

11-Jan  Finish up all hand drafting for evaluation
         Evaluation of all hand drafting projects

14-Jan  Meet in CCH 231
         Vectorworks - tools and procedures

15-Jan  Translating the hand drafting to CAD
         Ground plans on computer
         Light plot using Spotlight
         Paperwork for a production

16-Jan  Drafting scenery
         two dimensional scenery
         three dimensional scenery
         Making vectorworks do the work for you

17-Jan  Using vectorworks to model a design in 3d
         Wysiwyg - transferring 3d to wyg

18-Jan  Wysiwyg - modeling with light, creating looks, etc
         Review of all the projects at the end of class