Course Description
Students will learn to use the digital design program Vectorworks to produce 2D CAD drafting and 3D digital models, including essential drawing and editing techniques, organization of the drawings, and all the skills needed to draw accurate plans, elevations, and digital renderings for film and stage.

Method of Instruction
The course will consist of in class lecture and demonstration and student hands-on experience to demonstrate the tools and concepts of the program. Each week we will examine different aspects of each program in class, and each week there will be an assignment to be done to reinforce the weeks classwork.

In addition to weekly assignments there will be 2 class projects a final project and a final exam.

Course Objectives
Upon completion of this course students will be able to:

1. Understand the Vectorworks interface and the basic concepts of the program.
2. Create a 3D digital model of a set design in Vectorworks.
3. Produce finished drawings in Vectorworks demonstrating an ability to draft, dimension, print and export plans, elevations and details of a set design.
4. Create animated walkthroughs and photorealistic renderings of a design project.
TFM 559 Syllabus
Digital Design for Film and Stage- Vectorworks

My goal for students who have successfully completed this class is to be able to take raw data, develop it into a digital model in Vectorworks, and then use that model to create printed working plans.

Expected Abilities
Students in this course will need to:
- Understand the basic concepts of mechanical drawing.
- Understand the basic computer graphic interface.

Dates and Topics: 13 CLASSES AND FINAL
Wk 1   Vectorworks- 2D Drawing Tools- Worksheet 1
       9/2   Assignment: Exercise Sheet 1 – First 2 rows

Wk 2   Vectorworks- 2D Editing Tools- Worksheet 2
       9/9   Assignment: Exercise Sheet 1 – Second 2 rows

Wk 3   Drawing Organization and snaps. Worksheet 3. Make a Template
       9/16  Assignment: Station Layout

Wk 4   Creating and Modifying walls. Worksheet 4
       9/23  Assignment: Station Walls. Exercise Sheet 2– First 2 rows

Wk 5   Attributes, Resources and Plug-ins. Worksheet 5
       9/30  Assignment: Station doors and windows. Exercise Sheet 2– Second 2 rows

Wk 6   Classes, Layers and Viewports. Worksheet 6
       10/7  Assignment: Station sheet layers. Exercise Sheet 3– First row

Wk 7   Text and Dimensions. Worksheet 7
       10/14 Assignment: Station Notation. Exercise Sheet 3– Second row

Wk 8   Developing the drafted page. Elevations, sections and details. Worksheet 8
       10/21 Assignment: Finish and Print Station drawing.

Wk 9   Drawing a swing set, review. Worksheet 9– Drawing in 3D
       10/28 Assignment: Motel Layout Exercise sheet 4 – First Row.
TFM 559 Syllabus
Digital Design for Film and Stage- Vectorworks

Wk 10  Worksheet 10- Editing 3D objects. Motel Walls.
11/4  Assignment: Exercise sheet 4– Second Row
      Select Final Project

Wk 11  Happy Veterans Day

Wk 12  Worksheet 11- 3D Commands and Tools
11/18 Assignment: Motel Details.

Wk 13  THANKSGIVING

Wk 14  Worksheet 12, Camera, Walkthrus, and Renderworks
12/2  Assignment: Motel sheet layers.
      Check on final project.

Wk 15  Advanced modeling– Final project.
12/9  Assignment: Final Project

12/16  FINAL
      10–Noon Final Presentation, Final Project and Villa Capra Model

Required Materials

A computer running Vectorworks.
A student license running the Full version of Vectorworks is free and can be found here:
http://student.myvectorworks.com

We will make every effort to make access to the lab computers as convenient as possible. and will post a schedule of open hours when they can be used.
Suggested resources:
Nemetschek puts out a number of $75 Training manuals for the various flavors of Vectorworks. 
http://www.nemetschek.net/training/guides.php
The 3D modeling one is not bad. The others are find but really not that much better than the fee setup guides mentioned below

Instructional Web Sites / Vectorworks
Nemetschek
http://www.nemetschek.net/training/free_resource.php
There are several tutorials here for 2010 that walk through the setup and use of each design module, fundamentals, architect, etc. They are the most useful free training resources Nemetschek has provided in some time. 
http://www.nemetschek.net/library/index.php
At this site there are links to video tutorials for 2009, 2008 and version 12. Some good basic information available.

Forums- Good places to search for answers to what ails you.
Vectorworks: 
http://techboard.nemetschek.net/ubbthreads/ubbthreads.php

Texture Libraries- there are tons of them, here are some. 
http://mayang.com/textures/  
http://www.planit3d.com/source/textured_files/textures.html 
http://textures.forrest.cz/ 
http://local.wasp.uwa.edu.au/~pbourke/textures_colour/ 
http://www.textureking.com/ 
Plus a forum link to tons of other sites 

Useful Books:
Designer Drafting for the Entertainment World 
Patricia Woodbridge 
Focal Press, NYC

Architectural Graphic Standards. any edition 6 & up
Ramsey & Sleeper 
Wiley & Sons, NY.
The ultimate guide to the size, shape and details of anything built.
TFM 559 Syllabus
Digital Design for Film and Stage- Vectorworks

Architectural Graphics
Francis Ching.
John Wiley & Sons. Inc. 2003
Simple and clear architectural book.

Architectural Drawing
Rendow Yee
John Wiley & Sons. Inc. 2003
Very complete book on architectural drafting and sketching

Architectural Drawing and Light construction
Edward Muller
Prentice Hall Inc. 1985
The classic text on architectural drafting, the one I learned from oh so many years ago.

The Elements of Style: A Practical Encyclopedia of Interior Architectural Details from 1485 to the Present
Stephen Calloway
Simon & Schuster, NY
Useful architectural details.

GRADING PLAN

CLASS PARTICIPATION  26
13 classes /2

EXERCISE SHEETS  16
4 Exercise sheets/4

STATION DRAWING  15
MOTEL DRAWING  18
Exercise Sheets can be handed in digitally.
Drawings need to be submitted both digitally and printed.

FINAL PROJECT  25
Presentation of a design of your choice done in Vectorworks. Includes 3d
digital model. Notated and dimensioned sheet layers, (at least 2) a rendered and tex-
tured renderworks image, and a 20–30 second animated walkthrough.
TFM 559 Syllabus
Digital Design for Film and Stage- Vectorworks

TOTAL 100


FILE NAMING CONVENTIONS.
With the ever growing amount of digital information used on a project, proper file naming conventions are required. As you move on to work in the industry these will be forced upon you, so you might as well develop good habits now. All turned in assignments must follow the following naming conventions.

DMorong_Ebell_120131_Final.vwx

YOUR NAME
6-8 letter version of your name
Pick one and use it consistently.
ShazT
STaylor
SammiW
e tc.

PROJECT NAME
Provided by Instructor.
Motel
622Set4
VillaC
Ex3
WT14

DATE
YYMMDD

NOTE
Any short description you find useful.
Final
Int_MagicShop
WIP
Prelim
V_2_1

FILE EXTENSION
ShazT
STaylor
SammiW
e tc.

NOTE
-Do not use spaces or periods in the file name. Use underscores where you need a space. The only period should be just before the extension.
-Do not use any symbols, !@#$%^&*(){}, or anything that looks like cursing in the Sunday comics.

Project Names
Vectorworks Exercises
YourName_Ex1(2)_YYMMDD_Note.vwx

Ebell
YourName_Station_YYMMDD_Note.vwx

Motel
YourName_Motel_YYMMDD_Note.vwx

FINAL PROJECT
YourName_596Final_YYMMDD_Note.vwx

Management appreciates your cooperation.
DATA SECURITY (do not lose all your fine work)

The computers in the design lab are public computers. You are responsible for the back-up and security of your files. Do not trust the computers or TFM servers as the sole repository of your work. You must devise a backup plan, either to your own hard drive or a cloud service, and save copies of all your work there. A flash drive is not a backup plan, it is a recipe for disaster. If a flash drive fails the data on it is not recoverable. Do not lose and entire semesters worth of work. This has happened twice since I have been teaching this class. Do not allow yourself to be such a victim.

Course Specifics

This course will teach the fundamental concepts a very useful software program that has become a standard tool in the digital art department. This program is very intricate, detailed, complex and sometimes opaque. the purpose of our time here is to make the student as proficient as the class time allows. My aim is to teach you programs that will give you very valuable and marketable skill, so hang in there. The instructor will be happy to work individually with students who need additional help to keep up.

The assigned projects will take approximately 4 hours of outside class work each week. Students who need to hone their computer skills may require even longer in the beginning. Greater efforts will probably produce better results.

In a course based primarily on in-class instruction it is essential to attend every class and to keep up with the class work. If a student must miss a class and lets me know in advance I will schedule office hours to go over the material and keep the student up to speed. Students will not get credit for unexcused absences, and late assignments will be marked down 1 point for each week it is late.

This is a class that teaches how to use software to design scenery. You need to know the fundamentals of scene design and mechanical drawing to do the work. If you do not know the difference between a plan and an elevation, or 1/4” and 1” scale, you are in the wrong class.

You can Email me any questions you have, but make sure to specify that this is a class matter in the subject line. And don’t assume I am sitting at my computer waiting for your email. Allow plenty of time for me to respond. If you are having problems with a drawing it is usually best to attach the file so I can see what you are talking about.

Any students with disabilities needing academic accommodation should register and provide documentation to the Students with Disabilities Resource Center and bring the appropriate forms to the instructor before the second class meeting.

David Morong
Digital Design for Film and Stage- Vectorworks

Anyone who will miss one of our regularly scheduled classes for religious observation needs to inform the instructor by the second class and make arrangements to make up the class work.

I reserve the right to adjust the assignments and structure of the course as I or the Department sees fit. All changes will be done with full disclosure and with the utmost fairness.

Rules of conduct

Students are expected to arrive with materials and assignments ready at class time, and are also expected to return from breaks on time and be ready to work. CLASS WILL START ON TIME. Tardiness will result in a 0 for class participation that day. Doors will be locked, pass words demanded and disappointment doled out without mercy. So please be on time early.

No food or drink is allowed in the computer lab.

And Finally: Learning a design program is a bit like learning a language, and everything is slow, confusing, and sometimes seems senseless in the beginning. You need to keep plugging away until the tools and commands become familiar and second nature. Vectorworks is a fast and very powerful design tool–eventually. If you continue on in design these programs and their successors will be the tools you rely on every day to create your art and pay your grocery bill.
TFM 559 Syllabus  
Digital Design for Film and Stage- Vectorworks

Yes David,

I not only read the entire syllabus carefully, but I understand it in its entirety and have asked every question I can think of, and will not deny ever having seen it.

I understand that whining at the end of the year because these points would have raised my grade had I only been clever and responsible enough to turn this in on time will be fruitless.

NAME    DATE
written legibly

This form needs to be signed and personally handed to me before our 3rd class on 9/21 in order to get class participation credit for the first session.