A secondary level, multicurricular Quinmester course on stage design is tentatively outlined. The study and application of design and construction as it relates to stage production introduces students to the setting that man creates to give an illusion of the time, locale, and mood for his dramatic productions. The overall success of this illusion in aiding the production is enhanced by the study and use of established procedures in the design and construction of sets. A list of course objectives is followed by the course content in outline format. Course topics include historical background; theory of play presentations; familiarization of the stage; types of scenery; theory of theater presentation; planning scenery; design applications; painting; scenery assembling and shifting; and participation in stage production. A list of suggested learning activities is followed by a glossary of stage terminology and a resource guide. (Author/KSM)
STAGE DESIGN (MULTI-CURRICULAR) (Tentative Course Outline)

- ART CFT 1 6683.06
- ART CM 6693.03
- INT DEC 6698.01
- DRAMA 1 5184.11
  5185.21

Art Education
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(Tentative Course Outline)

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ART EDUCATION

Written by: Thomas F. Popovich

for the

DIVISION OF INSTRUCTION
Dade County Public Schools
Miami, Florida
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I. COURSE TITLE
STAGE DESIGN

II. COURSE NUMBERS

   Art Cft 1   6683.06
   Art CM      6693.03
   Int Dec     6698.01
   Drama 1     5184.11
   2           5185.21

III. COURSE DESCRIPTION

The study and application of design and construction as it relates to stage production. A multi-curricular course planned in cooperation with the drama department.

IV. RATIONALE

From the earliest beginnings of dramatic productions, western man has created settings to give an illusion of the time, locale and mood for his productions. The overall success of this illusion in aiding the production is enhanced by the study and use of established procedures in the design and construction of sets.

V. COURSE ENROLLMENT GUIDELINES

A. No prerequisite

B. Helpful if students have had prior experience in art, drama, or industrial art courses such as woodshop, drafting, graphics, etc.

VI. COURSE OBJECTIVES

At the completion of the course the student will:

A. Design a set for

   1. A one set show
   2. A multiple set show

B. Be able to draw sets for production through use of floor plans and scale models
C. Will construct, paint and set up a model of a production set

D. Will participate in the construction of a set and act as stage hand

E. Will know the various styles of stage design and be able to demonstrate this knowledge.

VII. COURSE CONTENT

A. Historical background
   1. Early dramatic productions
   2. Contemporary productions
   3. Other types of productions
      a. Musicals
      b. Children's plays
      c. Ballet and modern dance
      d. Opera
      e. Television
      f. Cinema

B. Theory of play presentation
   1. Elements of stage setting
      a. Scenery
      b. Costumes
      c. Props
      d. Lighting
   2. Requirements of stage setting
      a. Script reading
      b. Understanding the author
(1) Requirements of the script
(2) Exploring possible solutions of the script

c. Identification of scenic problems

(1) Structural limitations
(2) Problem of sight lines

C. Familiarization of the stage

1. Types of stages
   a. Open
   b. Apron
   c. Adaptable
   d. Flexible
   e. Thrust
   f. Non-proscenium
   g. Arena
   h. Little theatre
   i. Outdoor theatre
   j. Civic theatre

2. Introduction to various scenic props and equipment

D. Types of scenery

1. Unit
2. Interior
3. Exterior
4. Non-conventional and minimal
   a. Curtain set
   b. Wing and cloth set
c. Box set

d. Cyclorama set

5. Flat and 3-D scenery

6. Stock

7. Multisetting

8. Unframed

9. Projected

E. Theory of theatre presentation

1. Functions of the environment
   a. Placing the action
   b. Reinforcing the action
   c. Dressing the action

2. Scenic design
   a. Making the set
      (1) Locative
      (2) Expressive
      (3) Clear and simple
      (4) Practicable
      (5) Utilitarian
   b. Design of the set
      (1) Balance
      (2) Rhythm
      (3) Proportion
      (4) Unity
   c. Aesthetics applied through
      (1) Naturalism
      (2) Stylization
      (3) Abstraction
      (4) Constructivism
F. Planning the scenery

1. Requirements
   a. Duties of scenic designers
   b. Research of play

2. Thumbnail sketch

3. Drafting the design

4. Floor plan

5. Perspective drawing

6. Full color sketch

7. Model

8. Working drawings

G. Design application

1. Knowledge of construction techniques
   a. Tools and equipment
   b. Materials
      (1) Lumber
      (2) Hardware
      (3) Fabrics and paper
   c. Order or sequence of construction
   d. Special constructions
      (1) Jointing
      (2) Covering
      (3) Flameproofing

2. Specific construction
   a. Flats
      (1) Plain
      (2) Paneled
(3) Special
   (a) Door
   (b) Window
   (c) Fireplace, etc.

b. Frame units
   (1) Door
   (2) Window

c. Drops, borders and tabs

d. Cycloramas

e. Platforms

f. Built up ground and rocks

g. Stairs and steps

h. Walls and fences

i. Tree trunks and foliage

j. Ground rows and silhouettes

k. Irregular 3-D combinations

3. Painting

   a. Knowledge of painting techniques
      (1) Tools and equipment
      (2) Pigments and binders
         (a) Oil base paints
         (b) Shellac
         (c) Metallic paints
         (d) Dyes
         (e) Casein paints
         (f) Polymers and latex paints
         (g) Epoxy and acrylic paint

      (3) Preparation and mixing the paints

   b. Color
      (1) Color theory
      (2) Psychological impact of color
      (3) Effects of stage lighting
c. Scene painting

(1) Basic procedures
   (a) Prime coat
   (b) Following coats
   (c) Painting over old surfaces

(2) Methods of applying paint
   (a) Techniques
   (b) Shading and toning walls

(3) Imitations
   (a) Surface textures
   (b) Woodwork
   (c) Interior and exterior walls
   (d) Skies
   (e) Landscapes
   (f) Foliage
   (g) Distance, fog and mist

H. Assembling the scenery

1. Trial set up
2. Methods of lashing and bracing
3. Methods of bolting and hinging

I. Scenery shifts

1. Problems of handling scenery
2. Methods of flying
   a. Counter weight system
   b. Rigging
      (1) Knots
      (2) Splices
      (3) Tackles
3. Special shifting devices
   a. Wagons
b. Traps  
c. Elevators  
d. Revolves  

J. Participation in an actual stage production  

K. Destruction of the set  
1. Storage  
2. Salvage and reuse  

L. Evaluation  

VIII. SUGGESTED LEARNING ACTIVITIES  

A. Whenever possible arrange for field trips and professional guest speakers.  

B. During the technical or historical parts of the course team-teach with the drama or industrial art teachers in their areas of specialization.  

C. Visit an actual production and make arrangements for the students to visit backstage during a performance, dress rehearsal or construction of a set.  

D. Interview a scenic designer to supplement the teaching staff.  

E. Seek out those faculty members who have had theatrical experiences for their views and opinions.  

F. Visit different types of theaters in the community and discuss with the students the possibilities of staging a production from a scenic designer's point of view.  

G. Create simple design projects that will help the students to recognize and overcome problems in rhythm, balance, unity and proportion. Try the same type of approach on a 3-D level.  

H. Choose a simple play (consult the language arts department as to possible types.) Have the students read the play and then review the script requirements as to physical needs: doors, windows, etc.
I. Have the students create a thumbnail sketch of a one-set play. Expand the sketch to a floor plan done to scale. Create a perspective, obtuse or oblique drawing of the set. Create a full-color sketch of how the set will look when completed.

J. Have the students create a scale model of the set using light cardboard such as bristol, matt or oak-tag.

K. Have the students create scale working drawings of the set showing top, bottom, sides and front views of the various parts of the set.

L. Have the students become familiar with the stage at their school by visiting it and measuring and recording its physical proportions including all obstacles such as rigging ladders, etc. Also have the students take stock of available flats, props, etc., that are suitable for use.

M. Help the students construct, cover, size, paint and erect flats.

N. Assign individual students research for special constructions such as tree trunks, foliage, rocks, etc.

O. Demonstrate how to prepare, mix and apply paint. Have the students practice the various techniques in imitating various types of materials.

P. Select several paint examples and a spotlight with colored gels. Let the students discover the effects of colored light on a painted set and note the results.

Q. Have the students participate in an actual stage production as the stage crew.

IX. A GLOSSARY OF STAGE TERMINOLOGY

Act Curtain (Main Curtain) - A curtain directly behind the proscenium. It is raised and lowered to signal the beginning and end of acts or scenes.

Acting Area - The area on stage in which the action of the play occurs.

Apron - That portion of the stage between the Act Curtain and the footlights.
Arbor (Carriage) - A metal frame used to hold counterweights in the counterweight system of flying.

Backdrop (Drop) - A plain or painted curtain at the rear of the stage serving as a background for the acting area.

Backing - A scenic unit placed behind openings in the set to conceal the offstage area.

Back Painting - Painting the rear of a setting to make it opaque or to take out any wrinkles or pock marks.

Backstage - The area of a theatre behind the Act Curtain, including all areas pertaining to the production of the play. Also, that area of the stage that is out of sight of the audience.

Batten - Any long length of pipe or lumber used for attaching or stiffening scenery or supported from the lines of a flying system.

Blacks - A set of black drapery legs, borders and curtains, often provided as standard equipment for a stage.

Block - A pulley, or pulleys, with the accompanying frame.

Book Flat - Two flats hinged together to fold like a book. Also called a Two-Fold.

Border - A narrow strip of any type of cloth hung above the stage to hide that portion of the stage from the view of the audience.

Box Setting - An interior setting, usually composed of three walls and possibly a ceiling.

Cyclorama (Cyc) - A backdrop used to simulate the sky. May be straight, curved, or dome-shaped.

Downstage - That portion of the stage nearest the audience.

Dress Rehearsal - The last rehearsal(s) of the play before opening, in which all technical elements are used—scenery, lighting, costumes, makeup, properties, and sound.

Dressing (Set) - Pictures, furniture, properties, and decorative pieces added to a setting to make it look "lived in."
**Dutchman** - A narrow strip of cloth used to cover cracks between flats and make them appear as a solid wall.

**Elevations** - Sealed mechanical drawings showing flattened-out front or rear views of scenic units.

**Escape** - Offstage steps providing means of access to platforms.

**Facing** - Flats or cut-out pieces of board applied to the sides or edges of stairs and platforms to conceal the construction.

**Flat** - Canvas-covered wooden frame that constitutes the principal scenic unit.

**Flipper** - Any narrow flat (2' or under) hinged to another flat—usually at a 90° angle.

**Floor Plan** - A mechanical drawing showing the exact layout of the setting on the floor from a view directly above the stage.

**Fly** - To raise and lower scenery by means of pulleys and rope or cable.

**Fly Gallery (Fly Floor)** - An elevated platform along one side of the stage to which the pin rail is attached, and used for the operation of flying scenery.

**Fly Loft** - The area above the stage used for storage of flown scenery.

**Footlights** - A strip of lights recessed into the front edge of the stage floor.

**Forestage** - Any portion of the stage extending beyond the footlights into the audience.

**Gridiron (Grid)** - A structural framework near the top of the stage house, used to support equipment for flying.

**Ground Cloth (Floor Cloth)** - A covering (usually canvas) for the floor of the acting area, often painted as part of the setting design.

**Ground Row** - A low silhouette or painted cut-out representing skylines, hills, bushes, etc., placed at the rear of the stage and used to mask lights placed along the bottom of backdrops and eyes.
Header - A small flat placed between two standard flats to form the top of a door, arch, or window.

House - The seating portion of a theatre.

Jog - A narrow flat inserted into a setting wall to form an offset or niche.

Kill - To remove from a scene or setting, e.g., to kill a prop.

Lashing - Joining two flats by means of a cord looped around alternating cleats and tied off at the bottom.

Legs - Narrow drapery or scenery located at the sides of the acting area, used to mask the wings of the stage.

Level - A platform, or any raised portion of the stage, is often called a level.

Line - A rope or cable used for flying scenery.

Masking - Scenic units or drapery used to conceal portions of the stage not in use.

Offstage - That portion of the stage out of the view of the audience.

Onstage - That area of the stage seen by the audience.

Parallel - A type of folding platform.

Pin Rail - A metal railing attached to the fly gallery, containing pins onto which lines used for flying scenery are tied off.

Plug - A small flat used to fill an opening in or between flats for the purpose of closing off or reshaping the opening.

Portal - A false inner proscenium, often decorated, composed of flat-framed teasers and tormentors.

Practical - Said of any property or piece of scenery capable of being used, e.g., windows that open are practical.

Properties (Props) - All items used in a production other than scenery, costumes, lighting, and sound--set furniture, decoration, small hand props carried by the actors, etc.
Proscenium - The wall separating the stage from the auditorium, containing the proscenium arch, which outlines the proscenium opening, through which the audience views the play.

Rake - To set at an angle, either horizontally or vertically.

Return - A flat, usually black, running offstage parallel to the footlights from the downstage end of a setting, finishing off the setting and serving masking purposes.

Reveal - A board, or any stiff material, attached around an opening in a setting to give the illusion of thickness to the wall.

Rigging - Equipment and operations related to the flying system.

Scrim - A loosely woven cloth resembling cheesecloth, used onstage for window glass, to suggest distance, and for "disappearing wall" effects.

Set - Short term for setting or scenery; also used to mean to place into position onstage, e.g., to set a chair for the scene.

Shutter - The actual door within a door frame.

Sightlines - Lines of vision from the seats in the most extreme positions in the auditorium.

Sill Iron - A narrow strip of metal placed across the bottom of the opening in a door or fireplace flat to ensure rigidity and accurate measurements.

Size - A mixture of approximately 1 part glue to 10 parts water, used to shrink canvas on flats, and mixed with dry pigment to form scene paint.

Spike - To mark on the stage floor the position of any piece of scenery or furniture.

Stiffener - A batten secured at right angles to one or more flats or a piece of scenery to ensure rigidity.

Straightedge - Straight strip of wood or metal, 4 to 6 feet long, with beveled edges, used for painting straight lines.

Strike - To remove from the stage area any piece of scenery or properties.
Sweep - Board cut to form the curved portion of an arch.

Toaster - Drapery or scenery placed behind the top of the proscenium arch, used to alter the height of the proscenium opening.

Technical Director - In non-Broadway theatres, the Technical Director is responsible for all technical aspects of the production, including purchasing and supply, set construction and rigging, lighting and sound, set-up, shifting, run of production, striking, and scenery disposal.

Technical Rehearsal - First rehearsal in which scenery shifting, lighting, properties, and sound are incorporated into the production—it may or may not involve the actors.

Thickness Piece - Same as Reveal.

Tormentor - Scenery or drapery placed behind the sides of the proscenium arch, used to alter the width of the proscenium opening.

Trap - Removable portion of the stage floor.

Traveler - A track used for hanging and operating draw curtains; also the curtain or backdrop operated on such a track.

Trim - To adjust flown scenery so that it is parallel with the stage floor.

Tripping - Methods of rigging scenery to fly when the fly loft area is less than normal height.

Tumbler - Lumber, 1" x 3", hinged between the second and third flats of a three-fold, serving as a spacer to allow the third flat to fold over the other two.

Turntable - A revolving disc set into or on the stage floor for the purpose of shifting scenery.

Upstage - That portion of the stage area farthest from the audience.

Wagon - Rolling platform used for shifting scenery.

Wings - Offstage areas on either side of the stage between the edge of the proscenium arch and the stage wall; also, scenery or drapery set parallel to the footlights in rows along the sides of the stage to conceal that offstage area.
X. RESOURCES

A. Books


B. Periodicals

*Billboard*

*Drama-England*

*Drama Review*

*Drama Survey*

*Educational Theatre Journal*

*Modern Drama*

*Plays*

*Plays and Players and Theatre World*

*Shakespeare Quarterly*

*Shaw Review*

*Show*
Take One

Theatre Crafts

Theatre News

Tulane Drama Review

Variety

World Theatre

C. Newspapers

D. Films

Building a Set IFB 11 minutes C.

Designing a Set IFB 11 minutes C.

Humanities, The: The Theatre: One of the Humanities EBBC 30 Min. C.

Television Lighting NET 30 minutes B & W.

E. Theaters

Coconut Grove Playhouse
   3500 Main Highway, Coconut Grove

Merry-Go-Round Playhouse and Drama Studio
   235 Alcazar Avenue, Coral Gables

North Miami Playhouse
   1603 N. E. 123 Street, North Miami

Opera Guild of Miami
   330 Biscayne Boulevard, Miami

Upstage of Coconut Grove
   3356 Virginia Avenue, Coconut Grove

Fort Lauderdale Civic Theater

Beaumont Lecture Hall
   University of Miami, Coral Gables
Creative Arts Theatre
    Miami Dade Junior College - North Campus, Miami

Barry College

F. Equipment and Supplies

Cavalcade Equipment Company
    2994 N. W. 7 Street, Miami

Creative Lighting Consultants
    170 N. E. 40 Street, Miami

Horstein Theatre Equipment
    759 Flagler Street (W.), Miami

Miami Audio-Visual Company
    2623 S. W. 37 Avenue, Miami

Presentations, Inc.
    6321 N. W. 37 Avenue, Miami

Scenery, Inc.
    7215 W. 20 Avenue, Hialeah

Scenic Services
    7101 N. W. 6 Court, Miami

Stage Equipment and Lighting, Inc.
    12231 N. E. 13 Court, North Miami

Staging By Schmale
    115 N. E. 22 Street, Miami

Strobe Optics
    8127 S. W. 120 Street, Miami

Times Square Stage Lighting Co., Inc.
    318 W. 47 Street, New York City, New York