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### THTR 264.01: Master Electrician for the Stage

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**THTR 264-01 – SPRING 2014**  
**Master Electrician for the Stage**  
**M/W 1:10-2:00pm**  
**McGill 213**

**Instructors:** Zach Hamersley and Daniel Norton  
School of Theatre & Dance  
PARTV 131  
zhamersley@gmail.com, danielnorton09@gmail.com  
Office hours: Dan: T/R 11 am-1 pm Zach T/R 10 am-11am  
Dan: 419.360.1335 Zach: 406.241.9629

**Required Texts:**

Robert Mumm: *Photometrics Handbook*

Paul Carter: *Backstage Handbook*

Cadena, Richard: *Electricity for the Entertainment Electrician & Technician*

**Class Objectives:**

- To give the student practical knowledge and experience as a theatre electrician and Master Electrician for theatre.
- To make sure the students know how read and maintain a plot and generate Lightwright paperwork.
- To ensure that the students know the safety precautions and dangers in working with electricity.
- To be able to clearly define and explain why certain electrical practices are used.
- To provide the students with an effective method to troubleshoot problems.

**Course Description:**

Training for the position of master electrician. Practical application of production planning, lighting paperwork, overseeing lighting crews, advanced electrical theory, power distribution, and creative problem solving. Students will explore and be exposed to the applications of moving lights, color scrollers, rigging and the fly system, wireless DMX, LEDs, and much more. Students will work on major departmental productions. Attendance is required at all classes and crew calls. Students **cannot** make up missed assignments unless the instructors have previously excused such absences.

**Grading:**

Based on attendance, class participation and completion of assigned projects in the following percentages:

Attendance and class participation 30%

Projects 70%

All written work will be judged on content, organization and use of language. Spelling and grammatical mistakes will detract from the overall evaluation of the work.

Grading for the course and all elements within the course will use the ABCDF system with the following percentages applying:

92% and above=A

84%-91%=B

76%-83%=C

68%-75%=D

Below 68%=F

### **Brief Project Descriptions:**

- **Project #1: Basic Wiring/ Practicals (50 pts)**  
*Students will demonstrate their knowledge of basic wiring principles by adapting a conventional electric device into a working, stage practical.*
- **Thespians (50 pts)**  
*Students are asked to serve as light board operator for certain shifts of the annual Thespian Conference held in the Montana theatre. Students will be exposed to computerized light board technology and gain further insight into running a show in the position of a light board operator.*
- **Project #2: Scenarios (100pts)**  
*Students are challenged to think analytically and problem-solve hypothetical scenarios in the role of master electrician.*
- **Project #3: Hang a Plot (100pts)**  
*Students will assume the role of master electrician in the execution of hanging a light plot during the semester. During this hang emphasis will be placed on proper execution of the plot and proper safety standards more than how quickly it is completed.*
- **Project #4: Troubleshooting (100 pts)**  
*Within a predetermined time frame, students will be asked to troubleshoot and isolate the issue within a conventional lighting fixture and correct it so that the fixture is in working order. Students will exhibit an understanding of the inner workings of conventional instrumentation and how to safely and properly troubleshoot.*

**Term Schedule:**

<b>Date</b>	<b>Class Topic</b>
Mon, Jan. 27	Introduction to syllabus
Wed, Jan. 29	Define what an electrician and master electrician are
Mon, Feb. 3	Electricity and its applications (Project #1)
Wed, Feb. 5	Light Board Operation (Thespians)
Mon, Feb. 10	How to approach Light Plots and Paperwork
Wed, Feb. 12	Leadership, how to run a crew (Project #2)
Mon, Feb. 17	<b>NO CLASSES: Presidents' Day Holiday!</b>
Wed, Feb. 19	Hanging a Plot (Project #3]
Mon, Feb. 24	Circuiting and Patching
Wed, Feb. 26	Troubleshooting (Project #4)
Mon, Mar. 3	Introduction to Vectorworks
Wed, Mar. 5	Theatrical Spaces: Converting a Plot (Project #5)
Mon, Mar. 10	Communicating between Vectorworks and Lightwright
Wed, Mar.12	Critique Plots
Mon, Mar. 17	Master Electricians and Technology
Wed, Mar. 19	Projections. Types, screens, RDM
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Mon, Mar. 24	Rigging: The systems; ours and theirs , Rigging: Using it; weight calc and practice, rigging for practicals
Wed, Mar. 26	Visit UT for rigging discussion
Mon, Mar. 31	<b>NO CLASSES: Spring Vacation!</b>
Wed, Apr. 2	<b>NO CLASSES: Spring Vacation!</b>
Mon, Apr. 7	<b>Strike DiC</b>
Wed, Apr. 9	Foggers, and other effects. Demonstration.
Mon, Apr. 14	Scrollers: definition, how to... Setup, maintain and fix
Wed, Apr. 16	LED's: definition, how to... Setup, maintain and fix
Mon, Apr. 21	LED Exercises
Wed, Apr. 23	
Mon, Apr. 28	Moving Lights: Definition, how to... Setup, maintain and fix
Wed, Apr. 30	Moving light exercises
Mon, May 5	Cumulative Technology exercises, review
Wed, May 7	Cumulative Technology exercises, review

## Term Schedule: Spring 2014

**\*Disclaimer: All dates, times, and locations are tentative to change. Please contact the professor should you have any questions or concerns.**

<b>Date</b>	<b>Production</b>	<b>Task</b>	<b>Theatre</b>	<b>Call Time</b>	<b>Who</b>
<b>Sat, Feb. 15</b>	<i>Book of Days</i>	Hang	Masquer	9:00A-Finish	<b>ALL</b>
<b>Sat, Feb. 22</b>	<i>Book of Days</i>	Focus	Masquer	9:00 A-Finish	<b>ALL</b>
<b>Sat, Mar. 1</b>	<i>Dance in Concert</i>	Hang	Montana	9:00 A -Finish	<b>ALL</b>
<b>Sat, Mar. 8</b>	<i>Dance in Concert</i>	Focus	Montana	9:00 A-Finish	<b>ALL</b>
<b>Sat, Mar. 15</b>	<i>Book of Days</i>	Strike	Montana	5:00 P -Finish	<b>ALL</b>
<b>Mon, Apr. 7</b>	<i>Dance in Concert</i>	Strike	Montana	2:00 P-5:00 P	<b>ALL</b>
<b>Sat, Apr. 12</b>	<i>Midsummer</i>	Hang	Montana	9:00 A-Finish	<b>ALL</b>
<b>Sat, Apr. 19</b>	<i>Midsummer</i>	Focus	Montana	9:00 A-Finish	<b>ALL</b>
<b>Sat, May 10</b>	<i>Midsummer</i>	Strike	Montana	10:00 P-Finish	<b>ALL</b>

## Academic Misconduct, Student Conduct Code, and other Policies

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

All Theatre & Dance students must have an in-depth knowledge of the practices and procedures outlined in the School of Theatre & Dance *Student Handbook*. The *Handbook* is available online at <http://www.umt.edu/theatredance/about/handbook>.

There is inherent risk involved in many Theatre & Dance classes as they are very physical in nature. Please proceed through class, shop time, or rehearsal with caution. Always be mindful of your personal safety and the safety of others. Students participating in class/shop/rehearsal/performance do so at their own risk.

Due to safety considerations, at **no** point during a student's time spent in class or serving on a production (in any capacity) should non-enrolled persons be guests of that student **without my consent**. Presence of such unauthorized persons in a class, shop, or any backstage/off-stage area will negatively affect a student's grade.