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Spring 2-1-2016

THTR 264.01 - Master Electrician

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THTR 264-01 – SPRING 2016
Master Electrician for the Stage
M/W 1:10-2:00pm
McGill 213

Instructors: Zach Hamersley and Mark Andrews

TA: Caitlin Larson

School of Theatre and Dance

PARTV 131 Office hours: M-TH 2:10-5 PM

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Mark: 479.502.6815 Zach: 406.241.9629 Caitlin: 406.253.1393

Required Texts:

Robert Mumm; *Photometrics Handbook*

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

Suggested Texts:

Paul Carter: *Backstage Handbook*

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

Term Schedule A:

Date	Class Topic
Mon, Jan. 25	Introduction to syllabus
Wed, Jan. 27	Define the job responsibilities of an electrician and master electrician
Mon, Feb. 1	Electricity and its applications (Project #1)
Wed, Feb. 3	Light Board Operation/Circuiting and Patching (Thespians Board Op)
Mon, Feb. 8	How to approach Light Plots and Paperwork
Wed, Feb. 10	Hanging a Plot (Project #2)
Mon, Feb. 15	NO CLASSES: Presidents' Day Holiday!
Wed, Feb. 17	Weighting an Electric
Mon, Feb. 22	Troubleshooting (Project #3)
Wed, Feb. 24	Introduction to Vectorworks
Mon, Feb. 29	Communicating between Vectorworks and Lightwright
Wed, Mar. 2	Theatrical Spaces: Converting a Plot (Project #4)
Mon, Mar. 7	Critique Plots
Wed, Mar. 9	Leadership, how to run a crew (Project #5)

Mon, Mar. 14	USITT (TBD)
Wed, Mar. 16	USITT (TBD)
Mon, Mar. 21	Rigging: The systems; ours and theirs (Possible visit to UT)
Wed, Mar. 23	Rigging: Using it; weight calc and practice, rigging for practicals
Mon, Mar. 28	Master Electrician's and Technology
Wed, Mar. 30	Projections. Types, screens, RDM
Mon, Apr. 3	NO CLASSES: Spring Vacation!
Wed, Apr. 5	NO CLASSES: Spring Vacation!
Mon, Apr. 11	Foggers, and other effects. Demonstration.
Wed, Apr. 13	Scrollers: definition, how to... Setup, maintain and fix
Mon, Apr. 18	LED's: definition, how to... Setup, maintain and fix
Wed, Apr. 20	LED Exercises
Mon, Apr. 25	Moving Lights: Definition, how to... Setup, maintain and fix
Wed, Apr. 27	Moving light exercises
Mon, May 2	Cumulative Technology exercises, review
Wed, May 4	Cumulative Technology exercises, review
-----	FINAL EXAM

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: 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 #3: 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
- **Project #4: Converting a Plot (100pts)**
Students will be converting a plot from a larger space to a smaller space with limited instrumentation using vectorworks.
- **Project #5: Scenarios (100pts)**
Students are challenged to think analytically and problem-solve hypothetical scenarios in the role of master electrician.

Additional Projects: You will also be expected to be an Assistant Master Electrician to various productions throughout the semester. In addition you will be expected to attend all lighting Hangs, Focus, and Strikes. Here is an attached schedule.

Term Schedule B: Spring 2016

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

Term Schedule: Fall 2014

<u>Date</u>	<u>Production</u>	<u>Task</u>	<u>Theatre</u>	<u>Call Time</u>	<u>Who</u>
Sun. Feb 7	<i>Hot "n" Throbbing</i>		Hang	Masquer 9:00A-Finish	ALL
Sat. Feb 13	<i>Hot "n" Throbbing</i>		Focus	Masquer9:00 A-Finish	ALL

Tue. Feb 16-19	<i>DIC 2016</i>	Hang	Montana	In Shop	
Mon. Feb 22-25	<i>DIC 2016</i>	Focus	Montana	In Shop	
Sat. Mar 5	<i>Hot "n" Throbbing</i>	Strike	Masquer	TBD	ALL
Sat. Mar 19	<i>All in the Timing</i>	Strike	Masquer	TBD	TBD
TBD	<i>Odyssey 2016</i>		Dennison	TBD	EC
Sat. Mar 26	<i>DIC 2016</i>	Strike	Montana	TBD	ALL
Sat. Apr. 2	<i>Romeo and Juliet</i>	Hang	Montana	9:00A- Finish	ALL
Sat. Apr. 16	<i>Romeo and Juliet</i>	Focus	Montana	9:00A- Finish	ALL
TBD	<i>Romeo and Juliet</i>	Strike	Montana	TBD	ALL
TBD	<i>DNW</i>	TBD	Open Space	TBD	EC

Academic Misconduct and the Student Conduct Code

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://www.umt.edu/vpsa/policies/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/umarts/theatredance/About/handbook.php>.

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.

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). "Reasonable" means the University permits no fundamental alterations of academic standards or retroactive modifications. For more information, please consult <http://life.umt.edu/dss/>.