

# THTR 355

## FUNDAMENTALS OF LIGHTING DESIGN

MWF 9:30-10:20 IN CFTA 210

INSTRUCTOR: JIM BILLINGS

OFFICE: CFTA ROOM 135B PHONE: 646-5041 OFFICE HOURS BY APPOINTMENT

EMAIL: [JBILLING@NMSU.EDU](mailto:JBILLING@NMSU.EDU)

### COURSE DESCRIPTION:

THIS COURSE IS AN INTRODUCTION TO LIGHTING DESIGN. IT IS A COMBINATION OF LECTURE AND HANDS-ON LEARNING WITH CONCEPTS REINFORCED BY EXAMPLES. OUR LEARNING GOALS WILL BE:

- 1) TO LEARN AND USE VOCABULARY OF DESIGN AND THE LIGHTING INDUSTRY.
- 2) APPLY THE FOUNDATIONAL CONCEPTS TO DESCRIBE HOW DESIGN TOOLS FUNCTION.
- 3) ANALYZE DESIGN AND SCRIPT STRUCTURE.
- 4) PREPARE LIGHTING DESIGN DOCUMENTS.
- 5) CREATE AN ORIGINAL LIGHTING DESIGN FOR THE PROJECT, COMPLETE WITH ALL DOCUMENTATION AND PRESENTATION.

### COURSE DELIVERY:

FACE TO FACE WITH SOCIAL DISTANCING. IN THE EVENT THE UNIVERSITY IS LOCKED DOWN AGAIN, WE WILL CONVERT TO ONLINE. I AM CURRENTLY PLANNING WE WILL NOT RETURN TO THE CLASSROOM AFTER THANKSGIVING. PROJECT PRESENTATIONS WILL BE CONDUCTED ONLINE.

### COURSE GOALS:

UPON COMPLETING THIS COURSE, YOU WILL BE ABLE TO:

- APPLY DESIGN VOCABULARY AND DESCRIPTIONS WHEN SPEAKING ABOUT LIGHTING DESIGN.
- IDENTIFY DESIGN TOOLS AND MAKE CHOICES ABOUT WHERE TO USE THEM.
- APPLY THE FOUNDATION INFORMATION IN UNDERSTANDING HOW DESIGN TOOLS WORK.
- APPLY CORRECT TERMINOLOGY IN ASSESSING LIGHTING DESIGN AND SCRIPT ANALYSIS.
- CREATE AND INTERPRET DOCUMENTS USED BY LIGHTING DESIGNERS.

### TEXTBOOKS AND MATERIALS:

THERE IS NO REQUIRED TEXTBOOK FOR THIS CLASS. I DO RECOMMEND DESIGNING WITH LIGHT BY J. MICHAEL GILLETTE

READINGS FROM SELECTED SOURCES AND LECTURE NOTES WILL BE ON AVAILABLE ON THE MY WEB SITE : [JIMBILLINGSDESIGN.COM](http://JIMBILLINGSDESIGN.COM)

WE WILL BE VENTURING INTO THE THEATRE IN NUMEROUS CLASS PERIODS. NO BARE FEET OR OPEN TOED SHOES WILL BE ALLOWED. THEATRES ARE DANGEROUS AND UNPREDICTABLE ENVIRONMENTS.

SAFETY IS VERY IMPORTANT! IF YOU SEE SOMETHING THAT IS UNSAFE REPORT IT TO THE SUPERVISOR. IF FOR SOME REASON, YOU CANNOT PERFORM YOUR WORK ASSIGNMENT IN A SAFE MANNER PLEASE REPORT IT TO YOUR SUPERVISOR.

### COMMUNICATION:

ALL E-MAIL COMMUNICATION WILL BE THROUGH YOUR NMSU E-MAIL ACCOUNT. EMAIL IS THE BEST WAY TO GET IN

TOUCH WITH ME ([JBILLING@NMSU.EDU](mailto:JBILLING@NMSU.EDU)) IT ALLOWS ME TO ANSWER YOUR CONCERNS OR QUESTIONS AT A TIME I CAN GIVE IT MY FULL ATTENTION. I AM NOT RELIABLY NEAR A PHONE, BUT FEEL FREE TO TRY MY OFFICE NUMBER (646-5041) OR STOP BY MY OFFICE. I WILL ALWAYS TRY TO RETURN ANY E-MAIL WITHIN 24 HOURS. PLEASE DON'T HESITATE TO CONTACT ME WITH ANY PROBLEMS, QUESTIONS OR CONCERNS.

### COURSE REQUIREMENTS:

STAGE CRAFT AND COSTUME CRAFTS ARE NO LONGER PREREQUISITES FOR THIS COURSE.

### COURSE EXPECTATIONS

I EXPECT YOUR FULL ATTENTION, THEREFORE I HAVE A STRICT POLICY AGAINST THE UN-AUTHORIZED USE OF ELECTRONIC DEVICES DURING CLASS TIME. I ALSO EXPECT THAT YOU WILL BE RESPECTFUL OF OTHER STUDENTS AND LISTEN AND RESPOND RESPECTFULLY AND CONSTRUCTIVELY DURING DISCUSSIONS. IN RETURN, I PROMISE THAT I WILL ALWAYS MAKE TIME FOR YOU. I WILL LISTEN AND RESPOND RESPECTFULLY IN

DISCUSSIONS AND TO ANY COMMENTS OR CONCERNS YOU MAY HAVE.

## GRADING:

- 1). EXAMS (50%) THERE WILL BE TWO EXAMS. ALL TESTS ARE CUMULATIVE AND ARE BASED ON CLASS DISCUSSIONS AND HANDOUTS.
- 2). QUIZZES (20%) THERE WILL BE PERIODIC QUIZZES TO CHECK YOUR COMPREHENSION OF THE MATERIAL. THESE ARE GIVEN AS ONE TIME ONLY - THERE WILL BE NO MAKE UP QUIZZES.
- 3). PROJECT (15%) CONSISTS OF A WRITTEN STATEMENT, PAPERWORK AND A PLOT FOR A DESIGN.
- 4). CLASS PARTICIPATION (5%) CLASS PARTICIPATION IS EXPECTED OF ALL STUDENTS. THE MAJORITY OF THIS CLASS WILL BE AN INFORMAL LECTURE FORMAT. I WILL PROVIDE YOU WITH BASIC COURSE INFORMATION, HOWEVER, QUESTIONS PROVIDE ADDITIONAL DEPTH FOR CLASS INFORMATION. THE MORE YOU INVEST IN THE CLASS, THE MORE VALUABLE IT WILL BE.
- 5). ATTENDANCE: LECTURES FORM THE MAIN SOURCE OF INFORMATION IN THIS CLASS, CONSEQUENTLY, IT IS IMPORTANT FOR YOU TO COME TO EVERY CLASS. ATTENDANCE WILL BE TAKEN. YOU ARE ALLOWED TO MISS 4 CLASS PERIODS DURING THE SEMESTER FOR ANY REASON, WITH OUT PENALTY. EACH CLASS MISSED BEYOND 4 ABSENCES IS CONSIDERED TO BE UN-EXCUSED. SIGNED MEDICAL EXCUSES ALLOW YOU TO MAKE UP WORK MISSED, AND DO NOT ERASE ABSENCES.

FAILURE TO ATTEND CLASS WILL RESULT IN A FAILURE IN THIS CLASS. THE INSTRUCTOR WILL NOT AUTOMATICALLY DROP STUDENTS FOR LACK OF ATTENDANCE, BUT RESERVES THE RIGHT TO DO SO, WITHOUT FURTHER NOTICE IF A STUDENT MISSES 3 OR MORE CONSECUTIVE CLASSES.

## GRADING POLICY

MY GRADING SCALE IS:

FOR EXCEPTIONAL WORK 100-90% = "A"

FOR GOOD WORK 89-80% = "B"

FOR COMPLETED, AVERAGE WORK 79-70% = "C"

FOR BELOW AVERAGE WORK 69-60% = "D"

FOR WORK THAT IS FAILING OR INCOMPLETE 59% OR LESS = "F"

I DO NOT USE FRACTIONAL GRADING. MINIMUM PASSING GRADE FOR "S" OPTION STUDENTS WILL BE "C" WORK. I DO NOT USE FRACTIONAL GRADING.

## COURSE SCHEDULE

### SECTION ONE —GETTING STARTED — MODULE 1 ( 1WEEK )

OUR OBJECTIVES ARE TO REVIEW COURSE REQUIREMENTS, SAFETY INFORMATION, AND INTRODUCE WORKING IN THE THEATRE

WEEK #1

CLASS INTRO

### SECTION TWO — FOUNDATIONS OF DESIGN — MODULE 2 (7 WEEKS)

OUR OBJECTIVES ARE TO: SYNTHESIZE AND EXPLAIN UNDERSTANDING OF VOCABULARY AND CONCEPTS, EXPERIMENT WITH ITEMS TO LEARN PRACTICAL APPLICATIONS, AND EXPLAIN HOW PHYSICAL ASPECTS OF LIGHT AND LIGHT GENERATION WORK.

WEEK #2

ELECTRICITY 1

WEEK #3

ELECTRICITY2, CABLES AND CONNECTORS,  
QUIZ #1

WEEK #4

LIGHT SOURCES

WEEK #5

CONTINUE LIGHT SOURCES

WEEK #6		QUIZ #2
	REFLECTION AND REFRACTION	QUIZ #3
WEEK #7		
	MEASURING LIGHT	QUIZ #4
WEEK #8		
	COLOR THEORY	EXAM #1

## SECTION 3 -TOOLS OF DESIGN - MODULE 3 - ( 3 WEEKS )

OUR OBJECTIVES ARE: APPLY FOUNDATIONAL INFORMATION IN UNDERSTANDING HOW DESIGN TOOLS WORK, APPLY HISTORICAL DATA TO PLACEMENT OF DESIGN TOOLS AND INNOVATIONS, AND DEMONSTRATE UNDERSTANDING OF DESIGNER TOOLS.

WEEK #9	HISTORY AND CONTROL SYSTEMS	QUIZ #5
WEEK#10	INSTRUMENT TYPES, PARTS AND SELECTION FOR DESIGN	
WEEK #11		
OCT	DESIGN COMMUNICATION – PLOT AND PAPERWORK	

## SECTION 4 - CREATING THE DESIGN – MODULE 4 - ( 4 WEEKS )

OUR OBJECTIVES ARE : ANALYZE A LIGHTING DESIGN USING PROPER TERMINOLOGY AND CRITICAL UNDERSTANDING, ANALYZE A SCRIPT FORM THE LIGHTING DESIGN POINT OF VIEW, AND DESIGN LIGHTING FOR AN ASSIGNED PLAY WITH CONCEPT, PAPERWORK AND PRESENTATION.

WEEK #12	SCRIPT AND DESIGN ANALYSIS	
WEEK #13	FREELANCING, CONTRACTS AND PORTFOLIOS	
WEEK #14	DESIGN PROJECT/ VECTORWORKS	
THANKSGIVING BREAK		
WEEK #15	CREATE DOCUMENTATION, PRESENT PROJECTS	*ON-LINE
	PRESENTATION	

FINAL EXAM - MONDAY 12/7 8:00-10:00AM

## LATE WORK

THEATRE IS A PROFESSION DRIVEN BY DEADLINES. LATE WORK WILL ONLY BE ACCEPTED IN EXCEPTIONAL CIRCUMSTANCES. LATE WORK THAT IS ACCEPTED WILL LOSE 5% PER CLASS DAY. IT IS THE STUDENT'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR LATE WORK.

# ACADEMIC INTEGRITY

I HAVE A ZERO TOLERANCE POLICY ON ACADEMIC INTEGRITY. IF YOU DO SOMEONE ELSE'S WORK OR USE SOMEONE ELSE'S WORK AND I BECOME AWARE OF IT, YOU WILL BE DISMISSED FROM THE CLASS AND REFERRED TO THE DEPARTMENT HEAD AND DEAN'S OFFICE. THE STUDENT CODE OF CONDUCT DEFINES ACADEMIC MISCONDUCT, NON-ACADEMIC MISCONDUCT AND THE CONSEQUENCES OR PENALTIES FOR EACH. THE STUDENT CODE OF CONDUCT IS AVAILABLE IN THE NMSU STUDENT HANDBOOK ONLINE: [HTTP://STUDENTHANDBOOK.NMSU.EDU/](http://STUDENTHANDBOOK.NMSU.EDU/)

# ACCESSIBILITY SUPPORT

SECTION 504 OF THE REHABILITATION ACT OF 1973 AND THE AMERICANS WITH DISABILITIES ACT AMENDMENTS ACT(ADAAA) COVERS ISSUES RELATING TO DISABILITY AND ACCOMMODATIONS. IF A STUDENT HAS QUESTIONS OR NEEDS AN ACCOMMODATION IN THE CLASSROOM (ALL MEDICAL INFORMATION IS TREATED CONFIDENTIALLY), CONTACT:

TRUDY LUKEN, DIRECTOR  
STUDENT ACCESSIBILITY SERVICES (SAS)  
CORBETT CENTER, RM. 208  
PHONE: (575) 646-6840

E-MAIL: [SAS@NMSU.EDU](mailto:SAS@NMSU.EDU)

WEBSITE: : <http://sas.nmsu.edu>

NMSU POLICY PROHIBITS DISCRIMINATION ON THE BASIS OF AGE, ANCESTRY, COLOR, DISABILITY, GENDER IDENTITY, GENETIC INFORMATION, NATIONAL ORIGIN, RACE, RELIGION, RETALIATION, SERIOUS MEDICAL CONDITION, SEX, SEXUAL ORIENTATION, SPOUSAL AFFILIATION AND PROTECTED VETERANS STATUS.

FURTHERMORE, TITLE IX PROHIBITS SEX DISCRIMINATION TO INCLUDE SEXUAL MISCONDUCT, SEXUAL VIOLENCE, SEXUAL HARASSMENT AND RETALIATION.

FOR MORE INFORMATION ON DISCRIMINATION ISSUES, TITLE IX OR NMSU'S COMPLAINT PROCESS CONTACT:

LAURA CASTILLE, EXECUTIVE DIRECTOR AND TITLE IX COORDINATOR  
OFFICE OF INSTITUTIONAL EQUITY (OIE) – O'LOUGHLIN HOUSE, 1130 UNIVERSITY AVENUE  
PHONE: (575) 646-3635  
E-MAIL: [EQUITY@NMSU.EDU](mailto:EQUITY@NMSU.EDU)  
WEBSITE: [HTTP://EQUITY.NMSU.EDU/](http://EQUITY.NMSU.EDU/).

# TECHNICAL SUPPORT

THE ICT CUSTOMER SERVICE CENTER IS EQUIPPED TO DEAL WITH ALL OF YOUR INFORMATION TECHNOLOGY (IT) AND TELECOMMUNICATIONS NEEDS AT NMSU. THE ICT CUSTOMER SERVICE CENTER HOURS OF OPERATION ARE FROM 8:00 AM UNTIL 5:00 PM MONDAY THROUGH FRIDAY MOUNTAIN TIME. PLEASE FEEL FREE TO CONTACT THEM AT 646-1840 OR VIA E-MAIL AT [HELPDESK@NMSU.EDU](mailto:HELPDESK@NMSU.EDU). YOU CAN ALSO GO TO THE [STUDENT TECHNOLOGY HELP](#) WEB PAGE AND [STUDENT RESOURCES](#) LOCATED AT THE [CANVAS](#) WEB PAGE FOR ADDITIONAL INFORMATION ON CANVAS.

# SYLLABUS MODIFICATION

THE SYLLABUS IS THE "ROAD MAP" FOR THIS COURSE. IT ALLOWS BOTH THE STUDENT AND THE INSTRUCTOR TO HAVE AN IDEA WHERE WE ARE GOING, AS WELL AS ALLOWING US TO SEE WHERE WE HAVE BEEN. DATES AND TOPICS MAY SHIFT, DEPENDING ON CLASS DISCUSSIONS AND PACING. I MAKE EVERY EFFORT TO STAY WITH THE SYLLABUS, BUT I DO RESERVE THE RIGHT TO TAKE THE OCCASIONAL "SIDE TRIP" AS WAY OF ENHANCING THE CLASS. ANY MAJOR CHANGES, ESPECIALLY CHANGES FOR DUE DATES, QUIZZES OR EXAMS WILL SHOW UP AS AN ANNOUNCEMENT VIA E-MAIL AND WILL BE NOTED IN CLASS.