

# **Presidential Advisory Committee of Michigan Technological University**

## **Proposal 11-05**

(Voting Units: Academic Senators)

### **Fine Arts Department Degree Proposal**

#### **Theatre and Entertainment Technology, B.S.**

##### **1. Program Description:**

A Bachelor of Science degree in Theatre and Entertainment Technology is one that integrates studies in engineering technology with foundations in the arts. The Fine Arts Department will graduate well-educated professionals who blend solid technical expertise with innovation, artistry, and creativity. These graduates will be qualified to fill entry-level backstage positions in the entertainment industry in areas such as: theatrical production, multi-media concerts, theme parks, elaborate corporate events, sporting events, and their half-time extravaganzas.

##### **2. Rationale:**

The entertainment industry has a specific need for production artists who have a strong foundation in technology. The modern theatre and entertainment technology professional needs training in the fundamentals and traditions of theatre, integrated with technological skills gained from studies in engineering, computer science, and media production.

Standards for entry into careers in theatre and entertainment technology are continually increasing and the requisite technical and artistic expertise is rarely obtainable through apprenticeship/internship opportunities without a strong undergraduate education. In many cases an undergraduate degree is required for entry into apprenticeship and internship positions.

Currently, there are few theatre and entertainment technology training programs that incorporate engineering technology or computer courses to complete the education of entertainment technicians. It is the intent of the Fine Arts Department to integrate theatrical education with engineering technology to create a comprehensive performing arts technology program. The student will receive a solid education in general theatre practices as well as knowledge of new technologies being used in all aspects of the entertainment industry. The graduate of the Theatre and Entertainment Technology program will have marketable skills for a broad range of performing arts positions that include traditional theatre and concert venues, but go far beyond.

##### **3. Related Programs:**

- **At Michigan Tech**

Current Fine Arts degrees

Technical Theatre Minor

Music Technology Minor

Theatre Arts Minor

Art Minor

Music Minor

Other proposed Fine Arts degrees

Theater and Entertainment Technology, B.A.

Audio Production and Technology, B.S.

Sound Design, B.A.

- **Other Institutions**

Across the Country

Because theatre and entertainment technology is an emerging degree area, there are currently very few programs. We appear to be in the forefront. Two institutions that are offering or developing degrees similar to what we propose are:

- New York City College of Technology
- University of Nevada Las Vegas

In the Region

Several institutions in Michigan, Minnesota and Wisconsin offer traditional Bachelor of Arts degrees in theatre technology. The School of Music of the University of Michigan offers a BFA in Performing Arts Technology with a concentration in either Music or Media Arts and a BS degree in Sound Engineering, specific to music applications. These are more narrowly focused than the theatre and entertainment technology degree being proposed for Michigan Tech.

Benchmark Institutions

Only four of the colleges and universities of those identified as Michigan Tech's benchmark institutions offer degrees in theatre. None includes a significant technology component.

- Georgia Institute of Technology: Minor in Theatre
- California Polytechnic: Bachelor of Arts in Theatre
- Lehigh University: Bachelor of Arts in Theatre
- Carnegie Mellon University: Production Technology Management degrees (undergraduate and graduate)

#### **4. Projected Enrollment:**

The program is planned to grow modestly. We are confident of an initial enrollment of between three and five students in the major when this program is launched, prospectively in Fall'05. By 2009, total enrollment is expected to grow to twelve to fifteen in the major, and we will graduate our first class.

#### **5. Scheduling Plans:**

This degree will be administered as part of the regular course schedule, including alternate-year cycling of certain courses. The proposed teaching schedule is **Attachment A**.

#### **6. Curriculum Design: Theatre and entertainment technology, BS – 127 credits**

**Major Requirements: 46 credits**

**Foundation Courses: Take all 27 credits**

FA 1701 Backstage Technology (new course)	3
FA 1702 Lighting and Sound Technology (new course)	3
FA 2500 Music Theory I	3
FA 2800 Script Analysis (new course)	3
FA 2821 Performance Design Principles (new course)	3
FA 3810 Ancient Theatre History	3
FA 3821 Modern Theatre History (new course)	3
FA 3650 Production Management (new course)	3
FA 4970 or FA 4971 Final Project	3

**Design Courses: Choose 9 credits**

FA 3750 Lighting Design	3
FA 3760 Costume Design	3
FA 3700 Scenic Design	3
FA 3730 Sound Design	3

**Advanced Design: Choose 3 credits**

FA 4750 Advanced Lighting Design (new course)	3
FA 4900 Independent Study: Research	1-3
FA 4910 Independent Study: Studio	1-3

**Practicum: Take 7 credits**

FA 2661 Mainstage: Runcrew	5
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up to 2 credits can be FA 2662 Mainstage: Sound Runcrew

FA 3661 Mainstage: Management and Design	2
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**Computer Science/Technology/Engineering/Math Sequence: 44 credits**

CET 1110 Introduction to CAD	2
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**Take one of the following concentrations for 42 credits****Electrical Engineering Technology: 42 credits**

EET 1120 Circuits I <sup>1</sup>	4
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EET 2120 Circuits II <sup>1</sup>	4
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EET 2141 Digital Electronics and Microprocessor Fundamentals	4
EET 2233 Electrical Machinery	4
EET 3390 Power Systems	3
EET 3373 Introduction to Programmable Controllers	3
MAT 1155 or MA 1032 <sup>1</sup>	4-5
MAT 1195 or MA 1160 or MA 1161 <sup>1</sup>	3-5
MAT 2215 or MA 2160	3-4
ET, MET, MA, MAT, EE, MEEM, SAT, CET, CE, or CS elective	2-6
3 credit science class with a separate lab <sup>1</sup>	4

<sup>1</sup>These courses fulfill the General Education Science/Mathematics requirement.

**Electro/Mechanical Technology: 42 credits**

MET 1540 Materials Science <sup>1</sup>	3
MET 2000 Power Transmission <sup>1</sup>	3
MET 2120 Statics and Strength of Materials	4
MET 2130 Dynamics	3
MET 3242 Machine Design I	3
MET 3450 Machine Design II	4
MAT 1155 or MA 1032 <sup>1</sup>	4-5
MAT 1195 or MA 1160 or MA 1161 <sup>1</sup>	3-5
MAT 2215 or MA 2160	3-4
CH 1100 General Chemistry <sup>1</sup> OR	4
CH 1110 University Chemistry I <sup>1</sup> AND	4
CH 1111 University Chemistry Lab I <sup>1</sup>	1
EET, MET, MA, MAT, EE, MEEM, SAT, CET, CE, or CS elective	3-8

<sup>1</sup>These courses fulfill the General Education Science/Mathematics requirement.

**Computer Science: 42 credits**

CS 1121 (Intro. to CS I AND CS 1122 Intro to CS II) OR

(CS 1131 Comp Sci I) <sup>1</sup>	4-5
CS 1721 Object Oriented Programming <sup>1</sup>	1
CS 2321 Data Structures <sup>1</sup>	3
CS 2141 Software Development using C++	3
CS 2311 Discrete Structures	3
MA 1032 Data, Functions, & Graphs Plus <sup>1&amp;2</sup>	4
MA 1150, MA 1151, MA 1160, or MA 1161	4-5
MA 2150, MA 2160, MA or 1090	3-4
EET, MET, MA, EE, MEEM, MAT, SAT, CET, CE, or CS elective	10-13
3 credit science class with a separate lab <sup>1</sup>	4

<sup>1</sup>These courses fulfill the General Education Science/Mathematics requirement.

<sup>2</sup>MA 1032 requires proficiency in MA 0099. Credit in MA 0099 does not count towards graduation.

**Free Electives: 9 credits**

**General Education Requirements: 28 credits – see course catalog**

**Co-Curricular Activities: 3 credits**

### **7. New Course Descriptions:**

The proposed new courses have been carefully designed to rely on present faculty and facilities. Appropriate restructuring of positions has already taken place. Each of theatre and entertainment technology faculty (hired in 2000 and 2002) has been charged with developing courses for the minor in technical theatre that was introduced in the 2000-01 academic year and to design the degree proposals currently under consideration. These faculty and their courses serve as a foundation for the proposed degrees.

Some of the new courses are redesigned older courses (r), and several courses will be offered in alternating years (a). There may be a modest reduction in the total number of sections of Speech to avoid faculty overloads.

**FA 1701 Backstage Technology (r)** An overview of the basic techniques, theories, and terminology of technical theatre. Focus on practical application of stagecraft and rigging for a theatrical production, safety in technical theatre, physical theatre structures, production processes, and theatre organization. *Prerequisites: None. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Fall.*

**FA 1702 Lighting and Sound Technology** An overview of the basics of theatrical lighting, stage electrics, audio systems, and techniques for theatrical production. Focus on practical application of static and automated lighting for a theatrical production, including instrumentation and control. Introduction to live sound reinforcement, recording, and complex playback. *Prerequisites: None. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Spring.*

**FA 2800 Script Analysis (r)** An examination of drama for the purpose of gaining various textual methods of analysis for production: character analysis, thematic analysis, functional analysis, and plot analysis. This class emphasizes learning how to examine and understand a playscript for design production. *Prerequisites: None. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Fall.*

**FA 2821 Performance Design Principles (r)** An introduction to the design principles of the live art and entertainment industry, including design needs, production methods, equipment, and facilities for various venues. Among the applications to be surveyed are theatre, concerts, theme parks, museums, and corporate events. Related career opportunities will be explored. *Prerequisites: None. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Spring.*

**FA 3650 Production Management (a)** Procedures and skills of effective production management. Authoritative coordination of performers and technicians during rehearsal and performance periods. Maintenance and use of the production prompt book, notation, of ground plan and blocking; scene shifts; cues for lighting, sound, special effects, and performers; opening and calling the show; post-show wrap-up. Practical experience in stage managing. *Prerequisites: FA 1701, FA 1702 Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Spring; Offered alternate years, beginning with 2005-06 academic year.*

**FA 3821 Modern Theatre History(a)** An examination of American and European theatre history from the late 1700s to modern times. An emphasis on the interrelationships among technology and theatre space, design and drama, and how culture and society affected style. *Prerequisites: UN1002 or UN1003. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Spring; Offered alternate years, beginning with 2006-07 academic year.*

**FA 4730 Advanced Sound Design (a)** A study of the musicality of noise and texts and their integration in theatrical sound design, mixing, and mastering. Emphasis is on student creativity and critical listening. This class develops further applications of artistic concepts introduced in FA 3730. *Prerequisite: FA 3730 Sound Design. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Fall; Offered alternate years, beginning with 2006-07 academic year.*

**FA 4740 Transducer Theory (a)** In depth study of Microphone and Loudspeaker design as it applies to usage in recording and live sound reinforcement with an emphasis on interaction with the acoustical environment. *Prerequisite: FA 3730 Sound Design. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters Offered: Fall; Offered alternate years, beginning with 2005-06 academic year.*

**FA 4750 Advanced Lighting Design (a)** Studies of the visual results of lighting in a variety of environments, including theatrical, architectural, and industrial. Expansion of artistic concepts introduced in FA 3750. An exploration of various types of lighting equipment, control systems, reflectant and absorbent surfaces, and color mixing in light. *Prerequisite: FA 3750. Credits: 3.0 Lec-Rec-Lab: (0-3-0) Semesters offered: Fall: Offered alternate years beginning with the 2006-2007 academic year.*

## **8. Library & Other Learning Resources:**

The J. Robert Van Pelt Library offers services and resources to meet the informational and research needs of the University and to support members of the University community in the development of skills to be information literate and lifelong learners. Librarians offer a range of services, including workshops, online tutorials, course-related library seminars, and consultation services for students and faculty.

Students will be directed to active and regular use of the university library. This library has a broad range of print resources available in areas such as theatre architecture, costumes, scenery, stage

lighting, and theatrical sound. There is also an extensive collection of play script anthologies and other dramatic literature. There are resources, not specific to theatre, that are relevant to research for students in this degree program. These include but are not limited to books on general history and architecture as well as journals on topics such as audio engineering.

The Fine Arts Department Conference Room offers a collection of classic and recent play scripts, as well as relevant theatre and audio journals. These include: *Theatre Design and Technology*: the USITT journal for design, production and technology professionals in the performing arts and entertainment industry, *Stage Directions*: a resource for the non-equity theatre market, *Pro Lights and Staging News*, *Front of House*: live sound news, *Lighting Dimensions*, and *Entertainment Design*: on the art and technology of show business.

Much information is transitory in this area and current trends in design are important to the student's education. Online resources will be a necessary research tool. The United States Institute for Theatre Technology's website, [www.usitt.org](http://www.usitt.org), is one such resource.

## **9. Computing Access Fee:**

A computer access fee of \$200.00 will be assessed with each semester's tuition. Individual courses may require additional computer fees.

## **10. Faculty Resumes \_\_\_\_\_ :      See Attachment B**

## **11. & 13. Available/Needed Equipment & Space:**

In addition to facilities and equipment across the Michigan Tech campus that we encourage students to look at and take part in while here at Michigan Tech, the spaces and equipment dedicated to the needs of theatre include:

- Theatres

Rozsa Center for the Performing Arts

Proscenium theatre

1100-seat venue

State-of-the-art facilities and equipment

<http://www.aux.mtu.edu/rozsa/>

McArdle Theatre, Walker Arts and Humanities Center

Black box theatre

Flexible seating up to 265

2004 ETC lighting system

Calumet Theatre

Historic proscenium theatre

Hemp rigging

- Shops, Studios, Laboratories

Scene shops, 110 Rozsa, 206 Walker

Costume shop, 204 Walker

Light lab, 210 Walker

Recording studio, 214, 215 & 208 Rozsa

Sound technology lab, 210 Walker

Computer lab, 213 Rozsa

## **12. Program Costs:**

- **Year 1:** No new funds will be required to launch this program. The basic resources have been put in place in a systemic manner throughout the past several years. These include facilities in Walker and Rozsa as well as faculty and staff positions in theatre and entertainment technology. In order to provide majors with hands-on opportunities to study various aspects of theatre and entertainment technology, the increased investment in production budgets will be met from Department funds, including gifts from alumni, friends, and newly-developed corporate sponsors.
- **Years 2 & 3:** With the anticipated success of the Theatre and Entertainment Technology major, the Department is planning "internal" restructuring of faculty and staff, to be accomplished through attrition. No requests for new faculty or staff positions are planned during the first three years of this program.

## **14. Policies, Regulations, & Rules:**

The program will be administered by the Fine Arts Department in accordance with standard Michigan Tech policies governing baccalaureate degrees. The chair of the Department of Fine Arts will appoint a faculty member to direct the Theatre and Entertainment Technology degree program.

During the first two years in the program, an Theatre and entertainment technology major will be assigned to a faculty advisor. In the third year, the student will choose an area of emphasis and may choose another advisor with expertise in the emphasis area.

Neither the Minor in Technical Theatre nor the Minor in Theatre Arts is available to an Theatre and Entertainment Technology major.

## **15. Accreditation Requirements:**

Accreditation through organizations such as the National Association of Schools of Theatre (NAST) or the National Association of Schools of Music (NASM) is being explored for relevance to the university and these programs.

## **16. Internal Status of Proposal:**

Progression	Date Submitted for Review	Date Approved
1. <u>Department/School</u>	09.28.04	09.28.04
2. <u>Dean of Sciences &amp; Arts</u>	10.04.04	10.11.04
3. <u>Provost</u>	10.26.04	
a. <u>University Support Units</u>		
b. <u>University Senate</u>		
c. <u>Academic Affairs Off. Comm.</u>		
d. <u>Board of Control</u>		



**17. Planned Implementation Date:**

Fall 2005

**Attachment A**

**Fine Arts Proposed Teaching Schedules**

**Richard Blanning**

<i>Fall</i>	<i>Spring</i>
FA 2330 Art Appreciation	FA 2660 Mainstage Theatre: Acting
FA 2821 Live Art and Entertainment Design	<i>Alternate years beginning 2006-07</i>
<i>Alternate years beginning 2006-07</i>	FA 3330 Art History I
FA 3333 Sculpture	FA 3150 Life Drawing
<i>Alternate years beginning 2005-06</i>	<i>Alternate years beginning 2005-06:</i>
FA 4300 Advanced Sculpture	FA 3340 Art History II
	FA 3300 3-D Design

**Debra Bruch**

<i>Fall</i>	<i>Spring</i>
FA 2800 Script Analysis	UN 1002 World Cultures
FA 2090 Speech	<i>Alternate years beginning 2006-07</i>
UN 1001 Perspectives	FA 3780 Directing for Theatre
	FA 3821 Modern Theatre History
	<i>Alternate years beginning 2005-06:</i>
	FA 2660 Mainstage Theatre: Acting
	FA 3810 Ancient Theatre History

**Mary Carol Friedrich**

<i>Fall</i>	<i>Spring</i>
FA 1701 Backstage Technology	FA 1702 Stage Electrics and Sound Technology
FA 2661 Mainstage Theatre: Crew	FA 2661 Mainstage Theatre: Crew

3 Sections	2 Sections
<i>Alternate years beginning 2006-07</i> FA 4750 Advanced Lighting Design	<i>Alternate years beginning 2006-07</i> FA 3700 Scenic Design
<i>Alternate years beginning 2005-06</i> FA 3760 Costume Design	<i>Alternate years beginning 2005-06</i> FA 3750 Lighting Design

**Christopher Plummer**

<i>Fall</i>	<i>Spring</i>
FA 2661 Mainstage Theatre: Crew 3 sections	FA 1702 Stage Electrics and Sound Technology
FA 3730 Sound Design	FA 2661 Mainstage Theatre: Crew
<i>Alternate years beginning 2006-07</i> FA 4730 Advanced Sound Design	2 Sections
<i>Alternate years beginning 2005-06</i> FA 4740 Transducer Theory	<i>Alternate years beginning 2006-07</i> FA 3740 Recording
	<i>Alternate years beginning 2005-06:</i> FA 3650 Production Management
	FA 2660 Mainstage Theatre: Acting

**Suzanne Stephens**

<i>Fall</i>	<i>Spring</i>
FA 3670 Acting Ensemble	FA 3670 Acting Ensemble
FA 2660 Mainstage Theatre: Acting	FA 2090 Speech
FA 2600 Technique of Acting	2 Sections

**Attachment B**

**Michigan Tech Department of Fine Arts Faculty**

All CVs available upon request

**Mary Ann Beckwith - NWS**

**Professor of Art**

**B.A., Art and English;**

**Marygrove College, Detroit, Michigan (1967)**

### Professional Activities:

Professor Beckwith teaches drawing and watermedia. She is a signature member of the National Watercolor Society, and is a signature member and a Nautilus Fellow of the International Society of Experimental Artists. She is a member of Allied Artists of America, American Watercolor Society, Transparent Watercolor Society of America, and the Society of Layerists in Multimedia. She has had numerous national exhibitions, conducts workshops around the country, and has published two books on watercolor.

## **Richard Blanning**

**Associate Professor of Theatre and Art**

**M.F.A., Playwriting, Acting, and Management; University of Iowa, Iowa**

**City, Iowa (1972)**

### Professional Activities:

Professor Blanning directs theatre productions and teaches theatre appreciation, art appreciation, art history, live art and entertainment design, three-dimensional design, and advanced sculpture courses. Many of his original plays have been produced, and he has professional experience in directing, theatre management, scenic art, stage carpentry, and acting. He is a member of the Association for Theatre in Higher Education. Professor Blanning has been on panels for and presented many papers on creativity and the arts.

## **Dr. Debra Bruch**

**Associate Professor of Theatre**

**Ph.D., Theory & Criticism and Theatre History; University of Missouri-Columbia, Columbia, Missouri (1987)**

### Professional Activities:

Dr. Bruch is a director, scenic designer, and actor. She teaches directing, script analysis, theatre history, speech and World Cultures courses. She has published articles and book chapters on acting/directing methods and Australian drama. Many of her original plays have been published and produced. Dr. Bruch is a member of the Association for Theatre in Higher Education where she is the past chair and representative for the Religion and Theatre Focus Group for ATHE. She has chaired panels and presented papers on religious theatre and Australian theatre and is the editor for *The Journal of Religion and Theatre*.

## **Mary Carol Friedrich**

**Assistant Professor of Theatre**

**M.F.A., Design and Technical Theatre, Temple University, Philadelphia, Pennsylvania (1984)**

### Professional Activities:

Professor Friedrich teaches technical theatre, lighting design, costume design, and scene design. She designs in these areas and manages the costume shop. She has published articles on costuming research and techniques and has been a panel member and presented papers in the areas of color science and costume archaeology. She conducts workshops on color science for theatre design. She has worked professionally as a technical director, master electrician, and scene painter. Professor Friedrich is a member of the United States Institute for Theatre Technology and is affiliated with the Kennedy Center/American College Theatre Festival as an adjudicator and clinician.

## **Michael J. Irish**

### **Associate Professor of Music**

**M.M.E., Jazz Studies, University of Wisconsin – Stephens Point, Wisconsin (1982)**

Professional Activities:

Professor Irish teaches music theory and is the director of jazz studies. He has composed and arranged many jazz compositions that have been performed on campus and across the country. He has performed nationally and internationally at numerous jazz festivals and concerts. Professor Irish is a member of the International Association of Jazz Educators. His publications include compositions, instructional materials, and articles on guitarists and jazz. He was the recipient of the first National Band Association Award for Outstanding Achievement in Jazz Education.

## **Dr. Milton L. Olsson**

### **Professor of Music**

**D.M.A., Literature and Performance of Choral Music, University of Colorado, Boulder, Colorado (1975)**

Professional Activities:

Dr. Olsson chairs the Department of Fine Arts where he conducts the Concert Choir and the Keweenaw Symphony Orchestra. His choirs have performed nationally and internationally, and his choral compositions are available through National Music Publishers (NMP). He is affiliated with the American Choral Directors Association and the Michigan School Vocal Music Association (MSVMA), and is a choral adjudicator and clinician.

## **Christopher Plummer**

### **Assistant Professor of Theatre**

**M.F.A., Sound Design, University of Illinois at Urbana-Champaign, Urbana-Champaign, Illinois (2002)**

Professional Activities:

Professor Plummer is a sound designer, director, and recording engineer. He

teaches sound design, transducer theory, recording, production management and is director of the recording studio. He has designed sound professionally in New York. Professor Plummer is a member of

the United States Institute for Theatre Technology and is active in the Kennedy Center/American College Theatre Festival. He has chaired panels and presented papers on theatrical sound and conducts workshops on visualizing sound.

## **Dr. Suzanne A. Stephens**

**Associate Professor of Fine Arts**

**Ph.D., English/Contemporary American Drama, Miami University, Oxford, Ohio (1972)**

Professional Activities:

Dr. Stephens teaches theatre appreciation, improvisation, and acting. She directs mainstage productions and The Troupe, Michigan Tech's improvisational comedy ensemble. She has taught workshops on creative dramatics and has taken children's shows on regional tours. Dr. Stephens is active in the Kennedy Center/American College Theatre Festival. She has acted professionally and is a Certified Kripalu Yoga Instructor.

### **Attachment C**

#### **Michigan Tech Department of Fine Arts Degree Overview**

The graphic below represents how the four proposed degrees fit into Michigan Tech's current offerings. The degrees have been designed to provide students specific choices in aural and visual study relevant to their particular post graduation goals. Degrees on the left have a strong engineering focus for students interested in designing and building specific pieces of equipment. Degrees on the right focus on artistic background and are for students interested in working as artists on productions. Degrees in the middle provide a balance of artistic and engineering background for students interested in entering into consulting or other support positions not directly involved with either designing and building equipment or producing productions but needing experience in both areas.

**Adopted by the PAC (formerly Senate): 9 February 2005**

**Approved by President Mroz: 21 February 2005**

**Approved by BOC: 5 May 2005**