IUPUI MUSIC

DEPARTMENT OF MUSIC & ARTS TECHNOLOGY
SCHOOL OF ENGINEERING & TECHNOLOGY

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Contents

Indiana University Music and Arts Technology Program at IUPUI

The Indiana University Music and Arts Technology Program at IUPUI reflects urban culture and contemporary and digital arts. Special courses on American popular music, contemporary music performance styles, music technology, and music therapy are delivered by innovative instructional technology. The IUPUI music technology facilities have captured national attention.

The Indiana University Music and Arts Technology Program at IUPUI is committed to delivering quality music instruction to the undergraduate and graduate students at the nation's premiere urban institution. Most undergraduate courses carry no prerequisites and are open to all students. Performance ensembles are open to students, staff, faculty, and community members.

Ensemble groups include the IUPUI Jazz Ensembles, Pep Band, University Choir, Urban Drum Ensembles, Guitar Ensemble, Afro-Cuban Jazz Ensemble, Steel Drum Band, and Chamber Ensemble.

For more information, write to Indiana University Music and Arts Technology Program at IUPUI, 535 W. Michigan Street, Indianapolis, IN 46202 or call (317) 274-4000.

Web: music.iupui.edu

E-mail: info@music.iupui.edu

Graduate Program

The Master of Science in Music Technology provides graduate students an academic background in digital music production, instructional design, and multimedia development. Current graduates of this master's program have found employment in a wide range of business and educational settings. Participants develop skills in designing software, using authoring tools and languages, applying multimedia concepts, and managing technology facilities and projects. This degree is offered as an on-campus or online program.

On-Campus Program: Master of Science in Music Technology

Admission Requirements*

- Bachelor's degree (with demonstrated musical skills)
- Minimum grade point average of 3.0 (4.0 scale)
- Submission of a university and a School of Music application
- Official transcripts of all undergraduate and graduate study
- Evidence of musicianship through performance videotape, audio cassette, CD/DVD, or live audition
- Three letters of recommendation to support the admission application
- In-person or telephone admission interview with the head of graduate studies

Admission Categories

After the interview and upon receipt of the completed application, letters of recommendation, transcript, and evidence of musicianship, the Graduate Admissions Committee of the Indiana University Music and Arts Technology Program at IUPUI may grant regular admission, grant admission on probation, or reject the application.

Admission on Probation

Students who do not have an undergraduate and graduate grade point average of 3.0 or higher may be admitted on probation in exceptional cases. The probationary status continues until 9 credit hours of course work have been successfully completed. Students who are admitted on probation and incur academic probation during their first semester of study are subject to dismissal.

Degree Requirements

- 30 credit hours (18 credit hours at the 500 level or above)
- 6 credit hours in cognate courses (at the 400 level or above) to be selected from music, business, communications, computer science, education, fine arts, or law
- 6 credit hours of approved courses (at the 400 level or above) from the cognate field (or other fields, with the approval of the head of graduate studies)

Minimum Grade Point Average

- 3.0 average to continue
- No grades lower than B in core courses are counted toward the degree
- No grades lower than C are counted toward the degree

Residency Requirement

Three consecutive summers or two contiguous academic terms

Core Courses

The following courses, totaling 18 credit hours, are required of all students enrolled in the Master of Science in Music Technology program.

Class		Credit Hours
N512	Foundations of Music Production	3
N513	Principles of Music Technology	3
N514	Music Technology Methods	3
N515	Multimedia Design Applications in the Arts	3
N516	Advanced Interactive Design Applications in the Arts	3
N517	Internship in Arts Technology *or*	
N518	Arts Technology Development Project	3
Total Credit Hours		**18**

Cognate Field Courses

Six (6) credit hours are required in an approved cognate field within or outside the School of Music. Students may choose to complete the remaining 6 credit hours with emphasis in one of the following areas: music, business, communications, computer science, education, fine arts, or law (or other areas, with the approval of the department). The cognate field may become a minor if at least 12 credit hours are taken in one field.

Internship or Technology Project

Students may elect to enroll in an internship (N517) or develop a multimedia project (N518) as the summative experience in the program. Either option is supervised by the student's academic advisor and requires a full report. (These courses are part of the core courses listed previously.) Students participating in the internship get experience working with technology and multimedia experts in an academic technology setting or an industry setting for one semester. No thesis is required for the degree.

Online Program: Master of Science in Music Technology

The Indiana University Music and Arts Technology Program at IUPUI offers the entire M.S.M.T. Program "live," using streaming video, videoconferencing, and audio through the Internet. All course and degree requirements are the same as the on-campus program.

Admission Requirements*

- Bachelor's degree (with demonstrated musical skills)
- Minimum grade point average of 3.0 (4.0 scale)
- Submission of a university and a School of Music application
- Official transcripts of all undergraduate and graduate study
- Evidence of musicianship through performance videotape, audio cassette, or CD/DVD
- Three letters of recommendation to support the admission application
- In-person or telephone admission interview with the head of graduate studies

Admission Categories

After the interview and upon receipt of the completed application, letters of recommendation, transcript, and evidence of musicianship, the Graduate Admissions Committee of the Indiana University Music and Arts Technology Program at IUPUI may grant regular admission, grant admission on probation, or reject the application.

Admission on Probation

Students who do not have an undergraduate and graduate grade point average of 3.0 or higher may be admitted on probation in exceptional cases. The probationary status continues until 9 credit hours of course work have been successfully completed. Students who are admitted on probation and incur academic problems during their semesters of study are subject to dismissal.

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* Students entering the M.S.M.T. program with little or no computer experience are required to take Instructional Computing Basics (1-3 credit hours). The course consists of three units, each equivalent to 1 credit: computer awareness/literacy, basic applications, and instructional computing basics. A review of a student's prior computer course work and experiences, combined when necessary with a test, will be used to assess competencies in each of the three areas. This course does not count toward the minimum 30 credit hour requirement.

Degree Requirements

- 30 credit hours (18 hours at the 500 level or above)
- 6 credit hours in cognate courses (at the 400 level or above) to be selected from music, business, communications, computer science, education, fine arts, or law
- 6 credit hours of approved courses (at the 400 level or above) from the cognate field (or other fields, with the approval of the head of graduate studies)

Minimum Grade Point Average

- 3.0 average to continue
- No grades lower than B in core courses are counted toward the degree
- No grades lower than C are counted toward the degree

Virtual Residency Requirement

Course enrollment during three consecutive summers, or one summer and a contiguous academic term.

Core Courses

The following courses, totaling 18 credit hours, are required of all students enrolled in the M.S.M.T. program.

Class	Credit Hours
N512 Foundations of Music Production	3
N513 Principles of Music Technology	3
N514 Music Technology Methods	3
N515 Multimedia Design Applications in the Arts	3
N516 Advanced Interactive Design Applications in the Arts	3
N518 Arts Technology Development Project	3
Total Credit Hours	18

Cognate Field Courses

Six (6) credit hours are required in an approved cognate field within or outside the School of Music. Students may choose to complete the remaining 6 credit hours with emphasis in one of the following areas: music, business, communications, computer science, education, fine arts, or law (or other areas, with the approval of the department). The cognate field may become a minor if at least 12 credit hours are taken in one field.

Technology Project

Students develop a multimedia project (N518) as the summative experience in the program. This project is supervised by the student's academic advisor and requires a full report. (This course is part of the core courses listed previously.) No thesis is required for the degree.

Master of Science in Music Therapy

The Master of Science in Music Therapy program is designed to provide professional music therapists with advanced research skills and clinical practice in music therapy, and to teach music therapists how to utilize the array of tools available in music technology for such purposes. This degree is offered on campus and online.

Admission Requirements

- Bachelor's degree in music therapy or its equivalent
- Board certified by the Certification Board for Music Therapists
- Minimum grade point average of 3.0 (4.0 scale)
- Submission of a university and a School of Music application
- Official transcripts of all undergraduate and graduate study
- Three letters of recommendation
- In-person or telephone admission interview with music therapy faculty
- Videotaped music therapy session with accompanying documentation (the function of the recording is equivalent to a music audition; it will not be an actual session)
- Non-native speakers must demonstrate English language proficiency with a minimum TOEFL score of 600. International students will also need to meet the application requirements of the IUPUI Office of International Affairs.

Admission Categories

Upon receipt of the completed application, letters of recommendation, transcript, evidence of musicianship, and the interview, the Graduate Admissions Committee of the IU School of Music at IUPUI may grant regular admission, grant admission on probation, or reject the application

Admission on Probation

Students who do not have an undergraduate and graduate grade point average of 3.0 or higher may be admitted on probation in exceptional cases. The probationary status continues until 9 credit hours of course work have been successfully completed. Students who are admitted on probation and incur academic probation during the first semester of study are subject to dismissal.

Degree Requirements

- A total of thirty (30) credit hours are required for completion of the degree, including:
  - 12 credit hours in music therapy (at the 500 level or above)
  - 9 credit hours in core music technology courses (at the 500 level or above)
  - 6 credit hours of cognates (at the 500 level or above)
  - 3 credit hours of thesis work

Minimum Grade Point Average

- Minimum 3.0 average to continue
- No grades lower than B in core courses are counted toward the degree
- No grades lower than C are counted toward the degree

Core Courses

The following courses are required of all students enrolled in the Master of Science in Music Therapy program:

Class	Credit Hours
N512 Foundations of Music Production	3
N513 Principles of Multimedia Technology	3
N514 Music Technology Methods	3
N521 Research Methods in Arts and Music Technology	3
N530 Philosophy and Theory in Music Therapy	3
N531 Music Therapy Quantitative and Qualitative Research	3
N532 Music in Medicine	3
N533 Advanced Clinical Techniques in Music Therapy	3
N600 Music Therapy Thesis	3
Total Credit Hours	27

Music Therapy Thesis

The thesis is the final academic requirement for the degree. The thesis proposal must be approved by a faculty committee before enrollment in the thesis will be permitted.

Music Therapy Equivalency Program

The music therapy equivalency program is designed to assist students who already have an undergraduate degree in music in obtaining the needed competencies to become board-certified music therapists.

Admission Requirements

- Bachelor's degree in music from NASM-approved school
- Minimum grade point average of 3.0 (4.0 scale)
- Submission of a university and a School of Music application
- Official transcripts of all college course work
- Evidence of musicianship through performance videotape, audio cassette, CD/DVD, or live audition
- Three letters of recommendation to support the admission application
- In-person or telephone admission interview with the music therapy faculty
- Non-native speakers must demonstrate English language proficiency with a minimum TOEFL score of 600. International students will also need to meet the application requirements of the IUPUI Office of International Affairs.

Admission Categories

Upon receipt of the completed application, letters of recommendation, transcript, evidence of musicianship, and the interview, the Graduate Admissions Committee of the Indiana University Music and Arts Technology Program at IUPUI may grant regular admission, grant admission on probation, or reject the application.

Admission on Probation

Students who do not have an undergraduate average of 3.0 or higher may be admitted on probation in exceptional cases. The probationary status continues until 9 credit hours of course work have been successfully completed. Students who are admitted on probation and incur academic probation during their first semester of study are subject to dismissal.

Program Requirements

Program requirements vary depending on the student's background and educational needs. The American Music Therapy Association and the Certification Board for Music Therapists have identified minimum competencies needed to become board certified as a music therapist. The faculty and student will determine which competencies have not been addressed during previous course work. This needs and strength analysis will determine the courses needed to meet the standards.

Minimum Grade Point Average

- 3.0 average to continue
- No grades lower than C in music therapy core courses are counted toward equivalency

Music Therapy Equivalency Curriculum

There are 22 credit hours of music therapy core courses and 7 credit hours of practicum courses (including internship) required for the equivalency program. In addition, courses in clinical (psychology and anatomy) and musical foundations may be required, depending on the student's educational background.

Music Minor

The Indiana University Music and Arts Technology Program at IUPUI welcomes students whose majors are outside the School but who wish to minor in music. There is no audition required to minor in music, but students must declare music as their minor at the appropriate time in their undergraduate studies.

Music minors should participate in music ensembles within the Indiana University Music and Arts Technology Program at IUPUI and should register (or audition when required) for these ensembles during undergraduate orientation or the first week of class. The IUPUI Flute Choir, Jazz Ensemble, Pep Band, University Choir, Guitar Ensemble, and Urban Drum Experience are open to all students.

IUPUI Music Academy

The IUPUI Music Academy is a nonprofit community music school committed to providing high quality, professional music instruction to area residents of all ages and levels of ability. The academy serves more than 500 people each year, ages 18 months through adulthood, by offering music classes for children and adults; ensembles; private lessons; and the Conservatory, a comprehensive, college-prep program. The academy is a member of the National Guild of Community Schools of the Arts.

Music at the Center for Young Children

Children attending the IUPUI Center for Young Children (CYC) can participate in preschool music classes during weekdays. Classes are held at the CYC after lunch, so students do not miss any instruction time from the CYC program.

For more information, contact:

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International Music Technology Conference and Workshop

The Annual International Music Technology Conference and Workshop is hosted in Indianapolis during the latter part of June. Participants may register for graduate credit. At the International Computer Music Technology Conference they will be able to see and experiment with the latest technology. There is a technology facility and three labs to which they may have access.

- The IUPUI Computer Music Technology Facility includes two fully networked PC computer music technology laboratories with videostreaming equipment for Internet-based participants. Each workstation is equipped with a multimedia computer and a Korg X5D keyboard. For ease of use, the workstations in these two laboratories are connected to a Korg Group Education Controller Network.
- The Digital Keyboard Lab is equipped with 16 Yamaha Clavinova keyboards, a Yamaha Lab-controller audio system, Macintosh computers/interface cards, and a Teacher Station.
- The Graduate Multimedia Lab has full production capabilities, including a digital flatbed scanning, video and photographic digital cameras, sound-tool software, video-edit software, multimedia authoring tools, and CD/DVD-ROM burner hardware and software. Both Pentium and Macintosh computers are available.
- The Digital Sound Design Lab provides capabilities for all aspects of digital audio and MIDI-based production for sound tracks, multimedia design, sound sampling, sound design, and collaborative composition over the Internet.

Participants have the opportunity to work with both Macintosh and Windows applications. Topics include the following:

- Multimedia applications
- CD/DVD technology
- Music notation, sequencing, and sampling
- Internet resources and Web design
- Computer-based music instruction
- Music workstation design and construction
- Grant writing and fundraising for technology support
- Computer-based music curriculum design
- Special topics (e.g., podcasting, wikis, distance learning, new music software products)

Courses

Undergraduate Music Courses

B110 Horn Elective/Secondary (2 cr.) Private French horn lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

B120 Trumpet/Cornet Elective/Secondary (2 cr.) Private trumpet/cornet lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

D100 Percussion Elective/Secondary (2 cr.) Individual percussion lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

E241 Introduction to Music Fundamentals (2 cr.) Learn the basics of music reading, rhythm games, singing, keyboard skills, children's songs, and use of classroom instruments. Designed for, but not limited to, elementary education majors and others interested in using music as a learning tool.

E400 Undergraduate Readings in Music Education (1-2 cr.)

F400 Seminar/Variable Topics (2-3 cr.)

L100 Guitar Elective/Secondary (2 cr.) Individual guitar lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

L101 Beginning Guitar Class (2 cr.) Fundamentals of contemporary guitar playing, with emphasis on simple songs and chords; acoustic guitar required for class and practice.

L102 Intermediate Guitar Class (2 cr.) P: L101 and/or ability to read music and play chord structures proficiently. Builds on knowledge learned in L101; ability to reach chord notation, rhythms, and music notation necessary; acoustic guitar required for class and practice.

L103 Advanced Guitar Class (2 cr.) P: L101 or permission of instructor. Study of advanced techniques, including open tunings and slide guitar. A section for classical guitar is also available under this number.

L153 Introduction to Music Therapy (3 cr.) Introduction to the influence of music on behavior, the healing properties of music, the use of music therapy with a variety of populations, and the development of the music therapy profession. Includes an introduction to the clinical process and music therapy procedures as well as participation in experiential activities and observations of music therapy sessions.

L253 Music Therapy Observation Practicum (1 cr.) P: Consent of instructor. Observation of professional music, recreation, and occupational therapy groups in a variety of settings with client populations of varying needs.

L254 Music Therapy Practicum I (1 cr.) P: X298. Students provide services to individual client in campus clinic or at local agency. Emphasis on acquiring skill in conducting music therapy assessments. Two or more hours per week and attendance at weekly seminar. May be repeated. Liability insurance required.

L340 Music Therapy in Health Care (3 cr.) Study of music therapy methods and materials commonly used in assessment and treatment with adults and children in health care settings with an emphasis on older adult and rehabilitation services, wellness and stress management, pain management, and spiritual issues.

L353 Music Therapy Practicum II (1 cr.) P: L254. Students provide music therapy services to an individual client or group with emphasis on developing treatment interventions and plans. Two or more hours per week and attendance at a weekly seminar. May be repeated. Liability insurance required.

L354 Music Therapy Practicum III (1 cr.) P: L353. Students provide music therapy services to a group of clients in a local agency with an emphasis on assessment, treatment, planning, and evaluation. Involves three or more hours per week and attendance at a weekly seminar. May be repeated. Liability insurance required.

L410 Administrative and Professional Issues in Music Therapy (3 cr.) Study of government and professional guidelines that influence music therapy services and documentation practices. Includes administrative skills such as proposal writing, public relations, budgeting, staff relationships, interviewing, program development, and professional ethics.

L418 Psychology of Music (3 cr.) P: Consent of instructor. Introduction to the physical, psychological, and physiological aspects of sound and music. Survey of the theories related to sound production, acoustics, music perception and learning, and the effects of sound and music on the behavior of humans. Overview of music psychology research, the scientific method, and research techniques.

L419 Research in Psychology of Music (3 cr.) Overview and implementation of research methods, statistics, and techniques applied to psychology of music principles. Includes completion of experimental project related to psychology of music or musical behavior.

L420 Clinical Processes in Music Therapy (3 cr.) P: L153 or consent of instructor. Overview of the influence of music on behavior and the use of music in treatment plans with clients. Includes principles of behavior therapies as they apply to the music therapy clinical treatment process.

L421 Music Therapy Psychiatric Practicum (1 cr.) P: L354. Students provide music therapy services in a hospice or medical setting with an emphasis on conducting music therapy in a single-session format. Involves three or more hours per week and attendance at a weekly seminar. May be repeated. Liability insurance required.

L422 Music Therapy Theories and Techniques (3 cr.) P: L420 or permission of instructor. Study of philosophies, theories, and techniques of various music therapy, music education, and counseling models, including Analytic, Creative, and Orff music therapy. Emphasis on the integration of models to develop personal philosophies and theories of music therapy practice.

L424 Music Therapy Internship (2 cr.) P: All degree course work must be completed prior to registration.

M110 Special Topics in Music for Non-Music Majors (3 cr.) This is a variable topics class. At IUPUI; some of the topics could include the following: Music and Computers, Studio Music Lab (2 cr.), Urban Drum Experience Class I and II (2 cr.), Understanding Jazz (1 cr., 5 weeks), Understanding the Orchestra (1 cr., 5 weeks), Women Musicians (1 cr., 5 weeks), or Music of Louis Armstrong (1 cr., 5 weeks).

M174 Music for the Listener (3 cr.) A survey course covering traditional and modern music styles of the last 1,000 years. Learn how to listen to music, instruments, and musical forms. No prior music experience required. Offered on campus and through the Web.

M394 Black Music in America (3 cr.) A survey and exploration of black music from its African origins to the present, with special emphasis on its social, economic, and political impact.

P100 Piano Elective/Secondary (2 cr.) Individual piano lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

P110 Beginning Piano Class 1 for Non-Music Majors (2 cr.) Learn keyboard and music reading skills; must have access to out-of-class keyboard for practice. Classes meet in Clavinova lab. For students with no piano experience.

P120 Beginning Piano Class 2 for Non-Music Majors (2 cr.) P: P110 or permission of instructor. Builds on skills acquired in P110.

S110 Violin Elective/Secondary (2 cr.) Individual violin lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

S120 Viola Elective/Secondary (2 cr.) Individual viola lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

U320 Seminar: Advanced Urban Drum Experience I and II (2 cr.) P: consent of instructor. Builds on skills acquired from M110 Urban Drum Experience Class I and II. High level of tone development achieved on all hand drums. Performance skills increased on all other Latin instruments. Students learn to play various styles on each instrument.

U355 Music and Exceptionalities (4 cr.) P: L153 or the equivalent experience; sophomore standing or the permission of the instructor. Basic accompaniment skills on the autoharp, guitar, or piano are desirable prerequisites. Introduction to using therapeutic and recreational music activities with individuals who have special needs. Includes development of skills in planning and adapting music activities for specific goals, sequencing and leading music experiences, and structuring experiences to facilitate participant success.

V100 Voice Elective/Secondary (2 cr.) Individual voice lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

V101 Voice Class 1 (2 cr.) Introductory aspects of voice, basic vocal techniques, and a wide variety of vocal styles and literature; students perform solo and ensemble singing. No previous music experience required.

W110 Flute/Piccolo Elective/Secondary (2 cr.) Individual flute/piccolo lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

W150 Saxophone Elective/Secondary (2 cr.) Individual saxophone lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required.

X040 University Instrumental Ensembles (2 cr.) Indianapolis Philharmonic Orchestra. Admission by audition only.

X040 University Instrumental Ensembles (2 cr.) IUPUI Jazz Ensemble. Music of the Big Band era. This class is contingent upon enrollment of full instrumentation. Enrollment limited. Audition/interview required.

X040 University Instrumental Ensembles (1 cr.) IUPUI Pep Band. The Pep Band is organized in the fall and performs at home basketball games in the spring. Open to all students who play a band instrument.

X070 University Choral Ensembles (2 cr.) The following vocal ensembles are available at IUPUI: University Choir and Indianapolis Symphonic Choir (authorization and audition required).

X298 Music Therapy Pre-Practicum Exam (0 cr.) P: L153 or concurrent enrollment in L153 and consent of instructor. An assessment of vocal skills, accompaniment techniques, and functional music skills required for practica courses. Includes song leadership, vocal technique, and accompaniment skills on autoharp, guitar, piano, Q-chord, and basic percussion instruments. Required of all music therapy and equivalency students.

Z100 The Live Musical Performance (2 cr.) Examines the approach to attending live performances of music (large ensembles, chamber ensembles, solo recitals, and other multimedia performances). Students attend live performances and discuss music performances by genre to develop critical listening skills.

Z105 Traditions in World Music (3 cr.) Overview of music and cultures found in societies throughout the world. Primary focus will be on societies other than those of West European derivation. Music will be studied as a product of the culture in which it developed.

Z111 Introduction to Music Theory (3 cr.) A study of fundamentals of the language and notation of music: listening, music reading and writing, and the elements of music as used in a variety of genres. Open to all students interested in a general background in music. Recommended for singers, instrumentalists, and keyboard players.

Z201 History of Rock 'n' Roll Music (3 cr.) Survey of major trends, styles, and genres of rock music of the 1950s and 1960s, focusing on the work of artists and groups who have proved to have the most enduring significance.

Z211 Music Theory II (3 cr.) P: successful completion of Z111 Introduction to Music Theory or consent of instructor. Overview of part writing, musical form, harmonic analysis, and modulation. Intermediate aural skills including harmonic and melodic dictation.

Z301 History of Rock Music—'70s and '80s (3 cr.) Survey of trends and styles in rock music of the '70s and '80s. Focuses on the artists and groups who have shaped the music of yesterday, today, and tomorrow.

Z311 Music Theory III (3 cr.) P: successful completion of Z211 or consent of instructor. Overview of modulation, chromatic harmony, atonal composition, and serial composition. Advanced aural skills.

Z315 Music for Film (3 cr.) A survey of the music and sound of movie soundtracks. Class will feature film segments, which are analyzed to see how music textures, tempos, and structures affect the plot.

Z316 Music in Multimedia (3 cr.) The course focuses on learning to use music creatively and effectively in multimedia. Each student will complete a project that combines music with another type of media (animation, video, pictures, etc.).

Z317 Computer Music Composition I (3 cr.) Students with an understanding of music sequencing and notation software learn to apply music composition techniques to electronic and computer music. Basic MIDI tools are applied to composition. The course is project-based and requires a performance of student compositions and arrangements as a final project.

Z318 Computer Music Composition II (3 cr.) Students with introductory music composition techniques in electronic and computer music advance to sampling and looping technologies, and synchronizing digital music to video and film. The course is project-based and requires a performance of student compositions and arrangements as a final project.

Z320 Special Topics in Popular Music (3 cr.) This is a variable topics class in popular music. At IUPUI, some of the topics could be the following: Music Business Marketing, Music Theory IV, Women Musicians, History of American Popular Music, and Music of Jimi Hendrix.

Z340 Introduction to the Music Business (3 cr.) An introduction to the business aspects of the music industry. Recording companies, artists, contracts, and music production; copyright, licensing, and publishing; book agents, promotions, live performances, and performing arts organizations.

Z373 The American Musical: Context and Development (3 cr.) The origins of the American musical: its societal impact and its development from vaudeville and European operetta to the rock musicals of today.

Z374 Contemporary Broadway Musicals (3 cr.) An exploration of the Broadway musical with a focus on contemporary trends. American rock musicals, revivals, and British and European productions. Study of contemporary producers, composers, lyricists, choreographers, and directors.

Z375 Introductory to Latin American Music (3 cr.) Become acquainted with the rich variety of music from Latin America and the cultural, historical, and political influences upon the rhythm, timbre, and structure through listening and music making.

Z390 Jazz for Listeners (3 cr.) The course focuses on how to listen to jazz and what to listen for in jazz. In addition, students will survey and learn how to recognize various historical styles of jazz and major figures who have contributed to the jazz tradition. Live examples and performances in and out of class are a regular part of classes.

Z393 History of Jazz (3 cr.) Emphasis on jazz as a way to better understand the history and culture of America by examining the periods, major performers and composers, trends, influences, stylistic features, and related materials

Z401 Music of the Beatles (3 cr.) An in-depth, song-by-song look at the music, lives, and times of the Beatles. The course focuses on the music and is aimed at heightening student listening skills as well as fostering a deeper appeciation for the Beatles' recordings**.**

Graduate Music Courses

E536 Workshop: Introduction to the Business of Music (3 cr.) Introduction to the business aspects of producing and selling music. The main objectives are to discuss marketing for aspiring talent (singers, players, and songwriters) and take a look at "behind the talent" jobs in the music industry. Emphasis will be on entrepreneurship as the key to success. For graduate credit, an additional 1,000-word research paper is required.

E536 Workshop: Jazz Ensemble (2 cr.) This ensemble rehearses weekly and performs periodically on campus and at other local venues. A major concert is performed at the end of each semester. Authorization and audition are required.

E536 Special Workshop in Music Education (1-3 cr.) IUPUI focuses on implementing computers, MIDI keyboards, and multimedia into the music curriculum. Also used for campus leaders speaking on topics of media, instructional technology, distance learning, and multimedia; plus leading music technology guests.

N512 Foundations of Music Production (3 cr.) P: consent of instructor. Examines foundations and principles of music production. Topics include publishing, print media, music composition, methods, textbooks, multimedia, computer and electronic transmission of computer imaging, sound, and video. Other aspects covered are broadcast media; televideo graphics; background audio; script credit approval; clearances; recording; CD audio; sampling and reproduction of sound and images; multimedia; and computer applications, including network and broadband transmission of media. Business affairs, arts management, live performance, and legal aspects of the commercial music industry are assessed.

N513 Principles of Music Technology (3 cr.) P: consent of instructor. Examines theories and research in the use of computer technology with special focus on curriculum design and implementation of music technology in the classroom; learning and training theory paradigms applied to music technology; technology selection and assessment for learner-centered, individualized instruction and training; implementation and resource allocation; assessment designs for specific instructional models; technology and assessment database manipulation; curriculum design and media-optimized instruction; training curriculum models; and multimedia motivation.

N514 Music Technology Methods (3 cr.) P: consent of instructor. An in-depth study of sequencing and music notation technology. This course also explores the history of Music Instrument Digital Interface (MIDI) development and related uses of MIDI with multimedia, including history and development of music; computer graphics and video technology; multimedia methods and techniques applied to training and instruction; music applications of sound-based stimuli in methods; graphic design applications for visual stimuli; video graphics; and storyboard methods. Current and emerging digital arts technologies will be assessed.

N515 Multimedia Design Application in the Arts (3 cr.) P: consent of instructor. Presents the principles and fundamentals of instructional design and design techniques using authoring tools on PC, Macintosh, and emerging computer platforms. Included are storyboarding, planning, and organization of scripts; the use of current technology, computers, video, and digital arts equipment; computer-assisted design and project planner software tools; and management of design team concepts. Also includes design parameters for CD-ROM and videodisc production.

N516 Advanced Interactive Design Applications in the Arts (3 cr.) P: N515 or consent of instructor. Incorporates extensive analysis and use of computer and multimedia authoring tools intended for specific educational applications. Project management and programming team organization; media management and selection criteria for digital arts media development; task analysis and instructional sequencing applied to training and instruction; and assessment modeling and feedback schedules for intrinsic motivation of students and trainees are examined.

N517 Internship in Arts Technology (3 cr.) P: N516 or consent of instructor. An internship program for students to work with and learn from experts in arts technology fields who are developing and using new applications in commercial and educational settings. Requirements for interns include the development of a technology project proposal; interview, resume, and project presentation; on-site intern residency; project report; and oral and media presentation of project outcomes.

N518 Arts Technology Development Project (3 cr.) Students create and orally present a multimedia teaching/training project that combines one or more of several elements of music technology including CD-ROM, videodisc, digital audio and video, and MIDI. Requirements include technology project proposal development, oral presentation of proposal, research and development of project, project final report, and oral and media presentation of project.

N519 Digital Sound Design for Multimedia I (3 cr.) P: M110, N514, or consent of instructor. Digital sound design and multimedia applications result in use of advanced Digital Audio Workstations and advanced software systems. Digital software-based sampling, synthesis, and multitrack recording systems will be mastered, including Pro-Tools, CuBase, and experimental music systems. Lab time in Digital Sound Design Studio required.

N520 Digital Sound Design for Multimedia II (3 cr.) P: M110, N514, N519, or consent of instructor. Advanced applications of MIDI and next-generation sound file formats for producing soundtracks, multimedia events, and collaborative composition over the Internet.

N521 Research Methods in Music and Multi-media (3 cr.) P: consent of instructor. Introduction to the underlying principles and concepts of technology-based studies in the arts. Emphasis on   the integration of scientific methodology, descriptive and inferential techniques, and multimedia instrumentation in project development.

N522 Techniques for Music Performance, Teaching, and Production at a Distance (3 cr.) P: consent of instructor. Methods for collaborative music performance, teaching, and production over the Internet. Examination of real-time interactive processes for music presentations, instructional delivery, videoconferencing, and multimedia development.

N530 Philosophy and Theory in Music Therapy (3 cr.) P: consent of instructor. Philosophical and theoretical foundations of the use of music in therapy. Philosophical positions concerning science, knowledge development, theory construction, and values augment critical-thinking skills. Theories, models, and conceptual frameworks guide to topical inquiry.

N531 Music Therapy Quantitative and Qualitative Research (3 cr.) P: consent of instructor. Applications of scientific methodology to music therapy theory and practice. Philosophical differences between qualitative and quantitative research paradigms, integration of theoretical concepts and practice standards with scientific research proposals, and technological advances in research data collection and intervention delivery will be covered.

N532 Music in Medicine (3 cr.) P: consent of instructor. A survey of literature describing medical applications of music. Students have the opportunity to collaborate with health care professionals who work with various client populations.

N533 Advanced Clinical Techniques in Music Therapy (3 cr.) P: consent of instructor. Articulation, testing, and refining of theoretically derived music therapy protocols with a client population of choice. Students will work in consultation with music therapy, nursing, and medical staff.

N600 Thesis in Music Therapy (3 cr.)

Administrators

G. David Peters, *Professor and Chair, Department of Music and Arts Technology*

Fred J. Rees, *Professor and Head of Graduate Studies*

Faculty

Full Time

Albright, Bruce Randall, M.S.M.T. (*Indiana University—Purdue University Indianapolis*, *2002), Lecturer*

Alvarado, John, MM. *(University of Arizona, 2000), Lecturer*

Budai, William H., Ph.D. *(University of Oklahoma, 2006) Lecturer and Director, IUPUI Music Academy*

Burns, Debra, Ph.D**.** *(University of Kansas, 1999), Assistant Professor*

Deal, W. Scott, D.M.A. *(University of Miami, 1994) Professor*

Gilfoy, Jack, M.S. *(Indiana University, 1965), Lecturer*

Lindsey, Roberta L., M.A. *(Butler University, 1987),* Ph.D. (*The Ohio State University, 1996), Assistant Professor*

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Peters, G. David, M.S., Ed.D. *(University of Illinois, 1965, 1974), Professor and Chair, Department of Music and Arts Technology*

Rees, Fred J., D.M.A. (*University of Southern California, 1977), Professor and Head of Graduate Studies*

Walker, Richard., M.M. *(University of Illinois, 1993), Assistant Professor*

Adjunct and Part-Time Faculty

Anderson, Elizabeth Rene, M.M.E. *(University of North Texas, 1993), Adjunct Lecturer*

Babb, Douglas B., *Adjunct Lecturer*

Baranyk, David S., M.S.M.T. (*Indiana University—Purdue University Indianapolis, 1999), Adjunct Lecturer*

Burgomaster, Mary Ellen, M.M. *(University of Southern California, 1968), Adjunct Lecturer*

Cassidy, Robert, M.M. *(Ball State University, 2006), Adjunct Lecturer*

Copeland, David, M.A. *(University of Indianapolis, 2001), Adjunct Lecturer*

Gerzon, Joan, M.M. *(Indiana University, 1951), Adjunct Lecturer*

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Janke, Thomas J., M.S.M.T. *(Indiana University—Purdue University Indianapolis, 1999), Adjunct Lecturer*

Koenig, Mark, M.M. (*Georgia State University, 1986), Adjunct Lecturer*

Males, Julie Grace, M.A. *(St. Joseph's College, 2002), Adjunct Lecturer*

Marshall-McClure, Clara J., M.A. *(Purdue University, 1984), Adjunct Lecturer*

Mullins, Debra J., B.F.A. *(Indiana State University, 1975), Adjunct Lecturer*

Murphy, Martha, M.S.M.T. *(Indiana University—Purdue University Indianapolis, 2007), Adjunct Lecturer*

Murphy, Steven Kent, M.M. *(Ithacca New York University, 1992), Adjunct Lecturer*

Myers, Kathleen D., M.M. *(Butler University, 2002), Adjunct Lecturer*

Plexico, Byron, M.M. *(Butler University, 1991), Adjunct Lecturer*

Redmond, Mike, *Adjunct Lecturer*

Scull, Erik, M.S.M.T. *(Indiana University—Purdue University Indianapolis, 2003), Adjunct Lecturer*

Stokes, Jennifer, M.M. *(Indiana University, Bloomington, 1986), Adjunct Lecturer*

Valencia, Jose, M.M. *(Butler University, 2001), Adjunct Lecturer*

Sowers, Jodi L., M.M. *(Butler University, 1998), Adjunct Lecturer*

Whitsitt, Carol, M.M. *(University of Illinois, 1994), Adjunct Lecturer*

Witte, Diane, M.M.E. *(Butler University, 1985), Adjunct Lecturer*

Yon-Short, Chayoung, M.M. *(Butler University, 1995), Adjunct Lecturer*