Advanced Calculus
Introduction to topology; theorems on continuity, differentiation, integration, and convergence; introduction to differentiable manifolds. Prerequisite: MATH421.

MATH441, 442 Alt g (4,4)
Algebra
Study of groups, rings, fields, modules, vector spaces, and algebras. Prerequisites: MATH281, 355.

MATH471, 472 Alt g (8)
Geometry
Intuitive background and outline of axiomatic development of Euclidean, non-Euclidean, affine, and projective spaces. Relation of these topics to secondary teaching. Prerequisite: MATH173.

MATH487 Alt (variable)
Special Topics in Mathematics
Consult the instructor in regard to the topic to be covered. Prerequisite: Consent of teacher.

MATH495 (1-4)
Independent Study
Enables students to pursue topics in mathematics not offered in other scheduled courses. Ordinarily a minimum of 4 hours of study per week is expected for each credit. Grades are assigned on the basis of a procedure such as oral or written exams or reports selected by a faculty supervisor.

STATISTICS

STAT251 (4)
Probability Theory with Statistical Applications
Concepts of probability for students desiring a deeper understanding of the principles underlying statistical methods. Definitions of probability random variables, probability distributions, estimators, and statistical decision theory. Prerequisite: MATH163, 171, or 182.

STAT285 (4)
Elementary Statistics
A study of basic descriptive and inferential statistics, including elementary probability and probability distributions, statistical inference involving the binomial, normal, and t distributions, and hypothesis testing. Prerequisite: MPE 2.0. Does not apply to a mathematics major or minor.

STAT285 V (6 qtr; 4 sem)
Elementary Statistics—see content above.

STAT286 (4)
Statistical Methods
An introduction to multiple regression, analysis of variance, and non-parametric methods. Prerequisite: STAT251 or 285.

STAT455 (4)
Analysis of Variance
Tests of hypotheses concerning 2 or more populations, contingency table analysis, one-way and two-way analysis of variance, and experimental designs. Prerequisite: STAT286.

HONORS IN MATHEMATICS

MATH271-50 (1)

Honors in Mathematics
The study of mathematical problems where the solution depends more on insight and creativity than on routine computation. Repeatable to 3 credits. Prerequisite: MATH173 and consent of instructor.

GRADUATE LEVEL

MATHEMATICS

MATH530 (2-4)
Topics in Teaching Mathematics
Consult with the instructor in regard to the topic to be covered. Prerequisite: Consent of the instructor. Repeatable to 8 credits.

MATH540 Alt (2-4)
Topics in Mathematics
Consult with the instructor in regard to the topic to be covered. Prerequisite: Consent of the instructor. Repeatable to 8 credits.

The Andrews University Music Department has been a member of the National Association of Schools of Music since 1964. Music majors may choose to join the student chapter of Music Educators National Conference as well as the Music Department Society of Student Musicians. Selected students are chosen yearly for induction into Pi Kappa Lambda, the national music honor society.

Academic Programs

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</tbody>
</table>

The Music Department is committed to providing a vibrant environment to nurture artistic and creative growth in all students of music. It strives to encourage and guide students through classroom interaction and practical experiences as they mature into music professionals, and to mentor students in responsible use of their talents for service to Christ and humanity.

Non-music majors may take courses in music or participate in music lessons or ensembles for for credit or non-credit. See General Education section and course descriptions below for further clarification.

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ENROLLMENT

Status as a music major is provisional until the student demonstrates academic and performance skills on an acceptable level. All first-year students must take the Freshman Theory Placement Exam prior to being considered for acceptance as a music major. After the student performs in his/her first jury, the performance instructor makes a recommendation to the music faculty concerning the student's application for admission as a music major. See the Music Department Student Handbook for further information.
Private Music Lessons

Credits fulfilling music major degree requirements

MUPF464 Applied Music—Senior
MUPF364 Applied Music—Junior
MUPF164 Applied Music—First-year

For non-performance majors and minors $ (1-3)

MUPF465 Applied Music—Senior
MUPF165 Applied Music—First-year

Non-music students may register for music lessons. These courses do not apply toward fulfilling music major degree requirements without specific music faculty action.

General Education courses determine whether the degree is a Bachelor of Arts or a Bachelor of Science.

Music Performance Emphasis—60

A degree for those who wish to concentrate on performance and whose career goals focus on performance and studio or collegiate teaching and graduate school.

Requirements. 48 credits chosen from applied music; language (voice majors only); literature of the major area; music electives; pedagogy of the major area; teaching practicum; 12 credits of ensemble.

• Enrollment for a weekly 1-hour lesson (2 credits) each quarter in residence to a minimum total of 24 credits and until the senior recital is completed.
• Participation in an ensemble each quarter in residence. Bachelor of Music degree students majoring in piano or organ performance must take 6 credits of MUPF310 Piano Ensemble.
• Presentation of a junior recital and a senior recital.
• Attendance of major area master classes.

Music Education Emphasis—52-54

A degree for students seeking careers as certified K-12 teachers in pre-collegiate denominational or public schools. Students normally spend five years in residence to complete the requirements. Requires state teacher certification. First-year students must make application and consult with the certification clerk in the School of Education to keep abreast of certification requirements—11 credits of ensemble are required. Students must choose one of the following emphases:

Instrumental Emphasis—41
MUED304, 305, 375-02 to -06, 458, 459; 13 credits major performance, 4 credits minor performance which includes a 1- or 2-credit recital; ensemble credit must be in an instrumental ensemble.

Keyboard Emphasis— 42, 43
Either MUED304 plus MUED375-02 to -05 or MUED305 and 475 plus 4 credits of applied voice (MUPF164-464); MUED420 or 478, 458, 459; MUHL480 or 484; 13 credits major performance, 4 credits minor performance which includes a 1- or 2-credit recital (piano majors must choose organ as their minor instrument and vice versa); 3 credits of ensemble must be in MUPF 310.

Vocal Emphasis—42
MUED304, 305, 375-02 to -05, 458, 459, 475; 13 credits major performance, 4 credits minor performance which includes a 1- or 2-credit recital; ensemble credit must be in a choral ensemble.

Minor in Music—33
MUCT111, 112, 113, 121, 122, 123, 211, 221; MUHL456, 457; 6 credits of performance in one area; 3 credits of ensemble; Piano Proficiency.

Minor in Elementary Music Education—40

Undergraduate Programs

BA: Music—60

A liberal arts degree allows one to pursue a broad range of interests while majoring in music. Viable as a double major. Requires a minor area if no double major is chosen.

Major Requirements: MUCT111, 112, 113, 121, 122, 123, 211, 212, 213, 221, 222, 223, MUHL455, 456, 457; MURE420; 12 credits of performance in one area which includes a 1 or 2-credit recital or project; 6 credits of ensemble; 2 credits of electives; Piano Proficiency.

At least one course other than ensemble or applied music must be taken in residence. A minimum of 6 credits in applied music must be taken as upper-division credits. Keyboard majors (piano or organ) must take 3 credits of MUPF310 Piano Ensemble as part of their 6 credits of ensemble.

BA or BS in Elementary Education—58

A liberal arts degree for those interested in teaching pre-Jr-high level. Requires state teacher certification.

Major Requirements: MUCT111, 112, 113, 121, 122, 123, 211, 221; MUED301, 302, 458; MUHL456, 457; MUED375-05; 6 credits of performance in piano, 4 credits of performance in voice; 6 credits of ensemble; *6 credits of electives; Piano Proficiency.
Graduate Programs

Admission Requirements and Procedures

- General requirements for admission to graduate study as stated in the Admissions section of this bulletin.

- Musicians with various backgrounds often qualify to study music at the graduate level. Normally, a baccalaureate degree with a major in music is required; however, the following categories may also qualify:
  1. Students with an earned baccalaureate degree within any major, assuming adequate undergraduate preparation in music.
  2. Students who have completed programs comparable to the baccalaureate degree from non-United States institutions.

- The Music Department requires placement examinations in music history and literature, music theory, piano proficiency, and an audition in the major area of performance for all entering students prior to registration. Admission status is provisional until these examinations are completed and any deficiencies removed. Courses used to make up for a deficiency may be taken for graduate credit but may not count for graduate requirements; a minimum grade of B must be earned.

Ensemble Requirements

Participation on a non-credit basis is required for 4 quarters in one of the following: any Andrews University Music Department band, choir, or orchestra. Keyboard majors: see note below. Students who require more than 4 quarters to complete their degree must participate in an ensemble during each quarter of residence.

- Keyboard students in the MA and MMus (music education) are required to enroll for one credit of MUPF530 Advanced Keyboard Ensemble. This may apply as one of the minimum 4 quarters of ensemble.

- Performance majors in piano and organ are required to enroll for 2 quarters of MUPF530 and may apply these towards the minimum 4 quarters of ensemble.

Thesis/Project/Recital Requirement

- This requirement for an MA with emphasis in music or MMus in music education may be met by one of the following:
  1. A thesis—8 credits of MUHL699 and/or EDRM505.
  2. Two projects—2 credits of MUHL698 for each project.
  3. A credit recital—2 credits plus a minimum of 6 credits of applied music.
  4. One project plus a non-credit recital—2 credits of MUHL698 for the project plus a minimum of 6 credits of applied music.

- The MMus degree in performance requires a 2-credit recital. Recitalists must have taken in residence at least one-half of their applied music credit in their major performance area. They must enroll in applied lessons for at least three consecutive quarters prior to the recital date and must audition before a committee of music faculty one month prior to the recital. Students majoring in performance without an undergraduate major in the same performance area (or the equivalent) must offer two recitals, only the second of which is for credit.

Piano Proficiency

Music majors must pass a piano proficiency examination. Graduate students who have not passed this examination on the undergraduate level must take the examination prior to the first registration. Students who do not pass this examination must enroll in applied piano until the examination is passed.

Electives

- Each area of study has appropriate choices of electives. IDSC525 is recommended for all graduate students.

- Comprehensive Examinations. All graduate students in music take comprehensive examinations toward the end of their studies. Students should consult with their adviser concerning the appropriate time to apply for these examinations and for guidance in preparing for them.

- Non-degree (PTC) Students. A student who plans to study music under this classification (see p. 29) may be admitted to courses as approved by the department chair.

MA: Music—48

- MUCT355, MUHL519, MUHL695—12
- Music History and Literature—12
  (at least 8 credits from MUHL524)
- Music Performance—4-6
- Music Education—3-4
- Thesis/Project Recital—2-8
- Electives—8-12
- chosen from music, art, art history, literature
- Ensemble: see requirements above.

- Students who plan to enter a doctoral program in musicology or who plan to teach music history and literature should elect the thesis option and fulfill a language requirement of reading proficiency in French or German.

MMus

Music Education Emphasis—48+

Students majoring in music education must qualify for a state teaching certificate prior to conferral of degree.

- Foundation—24
  MUCT355, MUHL519, 695; MURE420*;
  MUED515, 521; MUPF506
- Music History and Literature—8-12
  including MUHL524
- Pedagogy—3
- Major Performance—4-6
- Thesis/Project Recital—2-8
- Electives—0-4
- Ensemble: see requirements above.

*Students who have completed MURE420 on the undergraduate level must substitute MUHL519.

Performance Emphasis 48+

Specialization: Organ, piano, string, or voice

- Foundation—22
  MUCT355; MUHL519, 524, 695; MUED450;
  MUPF575, 538 (String)
- History and Literature courses—4
- Major Performance—14
- Pedagogy—3
- Conducting (organ, voice)—4
- Music Electives—3-7
- Ensemble: see requirements above.

Specialization: Instrumental or choral conducting

- Foundation—40
  MUCT355, MUHL519, 524, 695, MUED464,
  MUPF506, 575
- Cognate field—8
- Ensemble: see above for requirements.

Courses

See inside back cover for symbol code.

MUSIC THEORY

MUCT111, 112, 113 (3, 3, 3)
Music Theory I, II, III
A study of music fundamentals, including scales, keys, and rhythm with an emphasis on applying these fundamentals on the keyboard. Content also includes ear training and sight singing.

MUCT121, 122, 123 (1, 1, 1)

- Ear Training Laboratory I, II, III
- Aural recognition of rhythmic patterns, intervals, chords, tonality, harmonic function, and melodic expression.

MUCT211, 212, 213 (4, 4, 4)

- Music Theory
- A study of four-part harmony and voice leading in 18th-century chorale writing; 7th chords, modulations, secondary dominants, borrowed chords, and Neapolitan and altered 6th chords. Ear training and sight singing comprise 50% of the course grade.

MUCT221, 222, 223 (1, 1, 1)

- Music Technology Laboratory I, II, III
- Acquaintance with current technological resources in music. Emphasis in computer notation systems, sequencing, and MIDI systems.

MUCT425

- Counterpoint
- Historical overview of counterpoint with emphasis on the practice and analysis of 18th-century contrapuntal techniques.

MUCT454

- Orchestration
- Scoring for chamber groups, larger ensembles, and full orchestra.

MUCT470

- Form Analysis
- The origin and meaning of form: motives, phrases, and periods with elementary and combined binary and ternary forms, rondo and sonata.

MUCT535

- Analytical Techniques
- Detailed comprehensive analysis of representative
works from various periods of music history. Repeatable. (Alternate years and summers with MUHL519.)

MUSIC EDUCATION

MUED301 Conducting I
The theory and application of basic conducting principles. (3)

MUED302 Conducting II
The application of theory and techniques unique to the conducting of both choral and instrumental ensembles. Prerequisite: MUED301 or equivalent. (3)

MUED304 Instrumental Conducting and Literature
Score analysis; score preparation and programming; study of significant band, orchestra, and ensemble literature. Prerequisite: MUED302 or equivalent. (3)

MUED305 Choral Conducting and Literature
Score analysis; score preparation and programming; special techniques in conducting choral music. Prerequisite: MUED302 or equivalent. (3)

MUED375 Music Methods
Fundamentals of performing and teaching ensemble instruments and voice with emphasis on their use in band, choir, and orchestra. (Brass [section 02], percussion [section 05], and vocal [section 06] are all taught in the same year, and string [section 04] and woodwind [section 03] are taught alternate years. Repeatable to 10 credits.) (2)

MUED420 Piano Pedagogy
Materials and methods of private and class piano instruction. (3)

MUED430 Topics in Music
A study of selected topics related to the music profession. Consult current class schedule for topics covered each year. Repeatable with different topics. (1-4)

MUED450 Teaching Practicum
Supervised teaching. Required for all undergraduate performance majors. (2)

MUED458 Music in the Elementary School
Methods and materials used in musical programs of the elementary grades including rhythm, singing, playing, and listening activities. (4)

MUED459 Music Methods and Materials
Methods and materials for the teaching of music in the secondary school with emphasis on the organization and administration of choral and instrumental ensembles. (4)

MUED464 Score Reading
Development of keyboard skills in score reading. Graded choral and orchestral literature from two-stave four-part writing to open score is practiced. Repeatable (only 2 credits apply toward a degree). (1)

MUED475 Voice Production and Pedagogy
A comprehensive study of current methodology directed toward the achievement of artistic singing and productive studio procedures. (3)

MUED478 Organ Pedagogy
Organ teaching and emphasis on keyboard and pedal technique, interpretation, sight reading, and repertoire. (3)

MUED479 String Pedagogy
A study of beginning through advanced pedagogical techniques, including tone production, dexterity, fingerings, and bowings. (3)

MUED485 Practical in Conducting
Individual attention and instruction with one of the larger ensembles. Repeatable. Prerequisite: MUED304 or 305 and permission of teacher. (1)

MUED515 Introduction to Research in Music Education
Research techniques appropriate to research in music education, principles of research design, organization of the research report, and critical examination of research studies in music education. Emphasis on developing knowledgeable and discriminating readers and interpreters of completed research. (4)

MUED518 Instrumental Methods
Comprehensive study of current methodology, emphasizing one of the following areas: woodwinds, brass, percussion, strings. (4)

MUED521 Historical and Philosophical Foundations of Music Education
Study of the philosophy and practice of Music Education from the 1920s to the present. (4)

MUSIC HISTORY AND LITERATURE

MUHL455 Music Literature and Style I (Antiquity—1600)
Historical development of musical styles and the relationship between music and social trends of the period. Visual and aural analysis of representative compositions and introduction to biographical and bibliographical materials. (4)

MUHL456 Music Literature and Style II (1600-1815)
See MUHL455. (4)

MUHL457 Music Literature and Style III (1815 - Present)
See MUHL455. (4)

MUHL467 Vocal Literature
Solo vocal literature representing significant repertoire from the primary eras of music history; Italian, French, and German literature included. (4)

MUHL470 String Literature
A study of string literature and style from the Baroque era to the present, including significant solo, chamber, and orchestral works. (4)

MUHL480 Organ Literature
A chronological survey of organ literature and the development of the instrument. (4)

MUHL484 Piano Literature
A chronological survey of clavichord, harpsichord, and piano literature and style, and the evolution of these instruments. (4)

MUHL519 Studies in 20th-Century Music
A survey of 20th-century repertoire from its late-19th-century origins to the present. Emphasis is placed on compositional and stylistic trends and surrounding artistic climates. (Alternate years and summers with MUCT535.) (4)

MUHL524 Music Literature Seminar
A study of selected major works from representative period(s)/composer(s). Provides a synthesis of musicological, historical, and interpretational techniques. Different literature covered each quarter. Prerequisite: Advanced-level survey courses or demonstrated equivalent. Repeatable to 12 credits with different emphases.

GENERAL EDUCATION

MUHL214 Enjoyment of Music
An opportunity to acquire a better appreciation of classical music—to discover how church music, folk songs, jazz, spirituals, gospel, rock and roll, and pop music fit into the broad spectrum of classical music from 1000 A.D. to the present day. (4)

IDSC200 Christ in Music and Art
An investigation of religious themes in art and music inspired by the life of Christ. Also discussed are the Christian and the aesthetic experience, as well as principles for understanding and evaluating art and music from the Christian perspective. Credit not applicable toward a major or minor in Music or Art. (4)

HONORS

MUPF396-50 Honors Music Recital (Junior)
A memorized recital under the supervision of a music honors committee. Research document on compositions performed is required. May be taken in lieu of certain required and applied music courses. (1)
MUPF496-50 Honors Music Recital (Senior) (2)
A memorized recital under the supervision of a music honors committee. A research document on compositions performed is required. May be taken in lieu of certain required and applied music courses. May count toward fulfillment of General Education Breadth Requirement. Non-music majors taking this course under this circumstance must obtain permission of the instructor in order to enroll.

INDEPENDENT STUDY
MUPF495 Independent Study (1-4)
In consultation with a member of the music faculty, a student may choose independent study in a special area of music. A brief outline of the study to be pursued must be submitted to the department chair. A minimum of 30 hours of work is required for each credit. Permission of the department chair required.

CHURCH MUSIC
MURE420 Church Music and Hymnology Alt g (4)
The biblical basis for and the theological implications involved in church-music practice with emphasis on the development of principles for guidance in the use and selection of available literature.

MURE485 The Church Organ and Service Playing g (4)
The development of the organ and organ literature; a practical study of church services, including organ registrations for choral music, vocal solos, and hymn playing; discussion of the organ interlude and improvisation.

PERFORMANCE
MUPF500 Applied Music Study in Private Lessons (minor performance) (1-5)
May also be chosen by non-music majors. Repeatable.

MUPF506 Advanced Conducting— Choral/Instrumental $ (4)
Section 01: Study of the art and techniques of conducting relative to the score and to the chorus as a performance instrument.
Section 02: Study of the art and techniques of conducting relative to the score and to the orchestra or band as performance instruments. Major works are studied and conducted. Repeatable (only 16 credits apply toward the degree).

MUPF525 University Orchestra (0 or 1)
MUPF526 University Wind Symphony (0 or 1)
MUPF527 University Chorale (0 or 1)
MUPF528 University Singers (0 or 1)
MUPF530 Advanced Keyboard Ensemble (0 or 1)

MUPF536 Singing Men (0 or 1)
MUPF537 Ladies’ Chorus (0 or 1)
MUPF538 Chamber Music Ensembles (0 or 1)
MUPF540 Applied Music Study in Class $ (1)
MUPF550 Private Instruction in $ (1-4)
MUPF560 Applied Music Study in Private Lessons (major performance) (1-5)
MUPF575 Recital (2)

RESEARCH AND SPECIALIZED STUDY
MUHL488 Workshop in Music (variable)
MUHL495 Bibliography and Research in Music (4)
An introduction to the tools and materials available in music research, with a critical analysis of sources. An examination of the goals and methods of research in music and an introduction to scholarly writing.

MUHL497 Independent Study and Research in Music Repeatable to 4 credits.

MUHL498 Project Repeatable to 4 credits.

MUHL499 Master’s Thesis (8)

NURSING
Marsh Hall (Second Floor)
(616) 471-3311 or (800) 877-2863
nursing@andrews.edu
http://www.andrews.edu/NRSG/  

Faculty
Karen A. Allen, Chair
Ruth D. Abbott
Nancy A. Carter
Diane M. Ford
Loren B. Hamel
Nancy A. Inquilla
Frances E. Johnson
Jacqueline L. Kimman
Margaret B. Marsh
Joseph M. Mucha
Melanie C. Quion
Cairn L. Ruhumiliza
Arlene M. Saliba
Cynthia C. Small
Carolyn J. Smith
Rilla D. Taylor
Victoria L. Wickwire

Academic Programs Credits
BS: Nursing 87
BS Completion Program varied
MS: Nursing 60

Seventh-day Adventist nursing is a professional practice designed to assist in the restoration of individuals to the image of their Maker. Professional nurses promote health and prevent illness through the facilitation of informed decision making and self-care behaviors in addition to providing expert and compassionate care to clients and families.

The Nursing Department provides a baccalaureate education in nursing which enables graduates to practice basic professional nursing, to use that practice as a vehicle for Christian witness, and to cultivate the intellectual skills needed for graduate study in nursing.

THE ACADEMIC PROGRAM
The Andrews University nursing program is approved by the Michigan Board of Nursing and has accreditation from the National League for Nursing. The BS: Nursing is a 12-quarter program planned to cover 4 academic years. The curriculum focuses on the provision of care and the promotion of health for individuals and families. Students gain proficiency through both class and laboratory experiences in a variety of settings.

To receive a strong and varied clinical experience, students travel to nearby hospitals and community agencies and work with clients of varied socioeconomic groups. Each student is responsible for providing or arranging her/his own transportation for clinical practice.

Admission to the Nursing Program. Students may enter the university as declared nursing majors, but the first year is spent in general education and cognate courses. Students apply for entrance to the clinical sequence during NRSG 221. Preference is given to applicants with GPAs