MAT 175 CALCULUS WITH ANALYTIC GEOMETRY I
[M] (F,S) (5.0, 0.0) 5.0
Calculus with Analytic Geometry I is the first of three courses in calculus and analytic geometry. Topics include the Cartesian plane, limits, derivatives, the mean value theorem, anti-derivatives, the fundamental theorem of calculus, elementary integration and applications. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-1][IAI Major Course Equivalent: MTH901]
NOTE: Credit is not granted for both MAT 171 and 175. A graphing calculator is required. It may be of any brand, but the TI-83 or TI-84 will be used by the instructor for classroom presentations. PREREQUISITE: MAT 165 or appropriate score on mathematics assessment exam.

MAT 201 MATH FOUNDATIONS FOR ELEM EDUC I
[E] (F,S) (3.0, 0.0) 3.0
Math Foundations for Elementary Education I is designed for students preparing to teach at the elementary level. The course covers problem-solving strategies, sets, number systems, number theory, integers, fractions, decimals and discusses the National Council of Teachers of Mathematics (NCTM) standards. (1.1-Articulated) PREREQUISITE: MAT 096 (or equivalent) and MAT 079 with a grade of C or higher, or MAT 096 (or equivalent) and MAT 099 with a grade of C or higher, or appropriate score on mathematics assessment exam.

MAT 202 MATH FOUNDATIONS FOR ELEM EDUC II
[M] (F,S) (3.0, 0.0) 3.0
Math Foundations for Elementary Education II builds on the previous course, including a more in-depth look at problem-solving strategies and NCTM standards. Students also learn about functions, statistics, probability, geometry, measurement and coordinate geometry. (1.1-Articulated) [IAI Core Course Equivalent: M1 903]
PREREQUISITE: MAT 201.

MAT 220 STATISTICS
[M] (F,S,Su) (3.0, 0.0) 3.0
Statistics covers basic statistics for business and social science students. They learn about measures of central tendency and variation, frequency distributions, probability, sampling, regression, analysis of variance, and statistical inference. (1.1-Articulated) [IAI Core Course Equivalent: M1 902][IAI Major Course Equivalent: BUS901]
NOTE: Credit or concurrent enrollment in MATH 220. A TI-83 or TI-84 graphing calculator is required. PREREQUISITE: MAT 161 or MAT 165 or MAT 170 or appropriate score on mathematics assessment exam.

MAT 245 CALCULUS WITH ANALYTIC GEOMETRY II
[M] (F,S) (5.0, 0.0) 5.0
Calculus with Analytic Geometry II is the second of three courses in calculus and analytic geometry. It covers derivatives and integrals involving logarithmic, exponential and trigonometric functions; integration techniques; conic sections; polar coordinates; parametric equations; and infinite series. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-2][IAI Major Course Equivalent: MTH902]
PREREQUISITE: MAT 175.

MAT 253 LINEAR ALGEBRA
[E] (4.0, 0.0) 4.0
Linear Algebra studies matrix algebra and solutions to systems of linear equations, matrix inversion, determinants, vector spaces, linear dependence, basis and dimension, subspaces, inner product spaces, the Gram-Schmidt process, linear transformation, matrices of a linear transformation, eigenvalues and eigenvectors, and Gaussian elimination. (1.1-Articulated) NOTE: A graphing calculator is required. The TI-82/83 is used for classroom presentations. PREREQUISITE: Credit or concurrent enrollment in MAT 245.

MAT 255 CALCULUS WITH ANALYTIC GEOMETRY III
[M] (F,S) (3.0, 0.0) 3.0
Calculus with Analytic Geometry III is the last of three courses in calculus and analytic geometry. It studies indeterminate forms, improper integrals, three-dimensional spaces, partial differentiation, and double and triple integrals. (1.1-Articulated) [IAI Core Course Equivalent: M1 900-3][IAI Major Course Equivalent: MTH903]
PREREQUISITE: MAT 245.

MAT 260 DIFFERENTIAL EQUATIONS
[E] (S) (3.0, 0.0) 3.0
Differential Equations studies first order and simple higher order differential equations, linear differential equations with constant coefficients, systems of linear differential equations, power series solutions, Laplace transforms and applications. (1.1-Articulated) [IAI Major Course Equivalent: MTH912]
NOTE: A TI-89 graphing calculator is used in classroom presentations. Students are encouraged to purchase a calculator that can do calculus and linear algebra. PREREQUISITE: Credit or concurrent enrollment in MAT 255.

MUSIC
NOTE: After registering for an applied music class (MUS 201 through MUS 218), students are contacted by a member of the Music Department by phone before or during the first week of the term to schedule music lessons. Each applied music class may be taken four times for a maximum of 8 credit hours.

MUS 100 CHORUS
[E] (F,S) (0.0, 2.0) 1.0
Chorus studies choral and performance techniques, primarily through participation in choral activities at the College. This course may be taken four times for a maximum of 4 credit hours. (1.1-Articulated)
PREREQUISITE: MUS 101 FUNDAMENTALS OF MUSIC

MUS 101 FUNDAMENTALS OF MUSIC
[E] (F,S,Su) (3.0, 0.0) 3.0
Fundamentals of Music is for students who have had little or no formal training in music. It covers standard pitch and rhythmic notation, major and minor scales, key relationships, simple intervals, and the qualities of triads. The course also includes simple ear training and an introduction to keyboard skills. (1.1-Articulated)
PREREQUISITE: MUS 101, MUS 140 or permission of instructor.

MUS 104 INTRO TO ELECTRONIC MUSIC PROCESSING
[E] (F,S,Su) (3.0, 0.0) 3.0
Introduction to Electronic Music Processing covers the basics of creating music digitally with audio files and computer software. Students create their own compositions using various digital processes and programs. They also learn about the history of electronics in music. (1.1-Articulated) PREREQUISITE: MUS 101, MUS 140 or permission of instructor.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 140 MUSIC THEORY I</td>
<td>Ear Training, Sight Singing, and Keyboard Harmony I</td>
<td>Introduces students to scales and key signatures, intervals, triads and seventh chords, melody criticism, harmonic progression, cadences and instrument transposition. Course includes a short composition project. (1.1-Articulated) PREREQUISITE: Concurrent enrollment in MUS 141.</td>
<td>3.0</td>
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<tr>
<td>MUS 141 EAR TRNG, SIGHT SING + KEYBD HARM I</td>
<td>Ear Training, Keyboard Skills and Sight Singing I covers aural recognition of intervals, rhythmic and melodic dictation, playing scales and chords on the keyboard, and beginning sight singing skills. (1.1-Articulated) PREREQUISITE: Concurrent enrollment in MUS 140.</td>
<td>2.0</td>
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</tr>
<tr>
<td>MUS 145 MUSIC THEORY II</td>
<td>Music Theory II is a continuation of Music Theory I with more in-depth study of melody, harmony and rhythm. (1.1-Articulated) PREREQUISITE: MUS 140, MUS 141 and concurrent enrollment in MUS 146.</td>
<td>3.0</td>
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</tr>
<tr>
<td>MUS 146 EAR TRNG, SIGHT SING + KEYBD HARM II</td>
<td>Ear Training, Sight Singing and Keyboard Harmony II is a continuation of Ear Training, Sight Singing and Keyboard Harmony I, emphasizing more complex music. (1.1-Articulated) PREREQUISITE: MUS 141 and concurrent enrollment in MUS 145.</td>
<td>3.0</td>
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</tr>
<tr>
<td>MUS 151 MUSIC APPRECIATION</td>
<td>Music Appreciation is designed for non-music majors. Students study basic elements in musical literature by prominent composers from various historical periods and examine the importance of music in history and society's influence on music. Outside listening is required. (1.1-Articulated) [IAI Core Course Equivalent: F1 900]</td>
<td>3.0</td>
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<tr>
<td>MUS 153 INTRODUCTION TO NON-WESTERN MUSIC</td>
<td>Introduction to Non-Western Music is designed for non-music majors. Students look at music in various parts of the world and the role music plays in each society and culture. (1.1-Articulated) [IAI Core Course Equivalent: F1 903N]</td>
<td>3.0</td>
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</tr>
<tr>
<td>MUS 153 INTRODUCTION TO AMERICAN MUSIC</td>
<td>Introduction to American Music is designed for non-music majors. The course gives students an overview of this country's rich and diverse musical heritage, from Colonial times to the 20th century. It explores classical music, folk, blues and jazz, as well as music created for the stage and screen. Outside listening is required. (1.1-Articulated) [IAI Core Course Equivalent: F1 904]</td>
<td>3.0</td>
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<tr>
<td>MUS 160 JAZZ ENSEMBLE</td>
<td>Jazz Ensemble is the study and performance of jazz. Students are introduced to the works of traditional and contemporary jazz composers and music and develop their technical skills for performance. May be taken four times for a maximum of 4 credit hours. (1.1-Articulated)</td>
<td>1.0</td>
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<tr>
<td>MUS 161 CHAMBER ENSEMBLE</td>
<td>Chamber Ensemble introduces a variety of chamber music, including analysis of composition and performance practices. Students develop written, aural and instrumental competence on selected instruments. This course may be taken four times for a maximum of 4 credit hours. (1.1-Articulated)</td>
<td>1.0</td>
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<tr>
<td>MUS 162 CONCERT BAND</td>
<td>Concert Band involves the study and performance of repertoire for concert band. Students develop aural and instrumental competence on selected instruments and technical competence in performance. This course may be taken four times for a maximum of 4 credit hours. (1.1-Articulated)</td>
<td>1.0</td>
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</tr>
<tr>
<td>MUS 171 MUSIC HISTORY I</td>
<td>Music History I studies styles, composers and literature from music's origins through the Baroque period. This course is intended for music majors and those with a strong music background. (1.1-Articulated) [IAI Core Course Equivalent: F1 901]</td>
<td>3.0</td>
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</tr>
<tr>
<td>MUS 172 MUSIC HISTORY II</td>
<td>Music History II studies musical styles, composers and literature from the Classical period through the 1950s. This course is intended for music majors and those with a strong music background. (1.1-Articulated) [IAI Core Course Equivalent: F1 902]</td>
<td>3.0</td>
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<tr>
<td>MUS 201 APPLIED MUSIC – OBOE</td>
<td>Applied Music – Oboe offers private lessons in oboe. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated) NOTE: Fee doubles for 2-credit-hour option.</td>
<td>2.0V</td>
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<tr>
<td>MUS 202 APPLIED MUSIC – ORGAN</td>
<td>Applied Music – Organ offers private lessons in organ. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated) NOTE: Fee doubles for 2-credit-hour option.</td>
<td>2.0V</td>
<td></td>
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<tr>
<td>MUS 203 APPLIED MUSIC – PIANO</td>
<td>Applied Music – Piano offers private lessons in piano. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated) NOTE: Fee doubles for 2-credit-hour option.</td>
<td>2.0V</td>
<td></td>
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<tr>
<td>MUS 204 APPLIED MUSIC – FRENCH HORN</td>
<td>Applied Music – French Horn offers private lessons in French horn. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated) NOTE: Fee doubles for 2-credit-hour option.</td>
<td>2.0V</td>
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<tr>
<td>MUS 205 APPLIED MUSIC – VOICE</td>
<td>Applied Music – Voice offers private lessons in voice. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated) NOTE: Fee doubles for 2-credit-hour option.</td>
<td>2.0V</td>
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</tr>
</tbody>
</table>
MUS 206 APPLIED MUSIC – VIOLIN
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Violin offers private lessons in violin. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 207 APPLIED MUSIC – SAXOPHONE
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Saxophone offers private lessons in saxophone. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 208 APPLIED MUSIC – CLARINET
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Clarinet offers private lessons in clarinet. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 209 APPLIED MUSIC – STRING & ELECTRIC BASS
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – String and Electric Bass offers private lessons in string and electric bass. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 210 APPLIED MUSIC – TRUMPET
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Trumpet offers private lessons in trumpet. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 211 APPLIED MUSIC – TROMBONE
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Trombone offers private lessons in trombone. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 212 APPLIED MUSIC – BARITONE
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Baritone offers private lessons in baritone. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 213 APPLIED MUSIC – GUITAR
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Guitar offers private lessons in guitar. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 214 APPLIED MUSIC – FLUTE
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Flute offers private lessons in flute. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 215 APPLIED MUSIC – VIOLA
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Viola offers private lessons in viola. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 216 APPLIED MUSIC – CELLO
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Cello offers private lessons in cello. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 217 APPLIED MUSIC – PERCUSSION
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Percussion offers private lessons in percussion. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 218 APPLIED MUSIC – BASSOON
[E] (F,S,Su) (2.0, 0.0) 2.0V
Applied Music – Bassoon offers private lessons in bassoon. It may be taken up to four times for a maximum of 8 credit hours. (1.1-Articulated)
NOTE: Fee doubles for 2-credit-hour option.

MUS 240 MUSIC THEORY III
[E] (F) (3.0, 0.0) 3.0
Music Theory III is a continuation of Music Theory II. It studies techniques of chromatic harmony, advanced modulation, analysis and modal harmony. Students also learn modulation to remote tonal areas and are introduced to the structure and form of 18th and 19th century tonal compositions. (1.1-Articulated)
PREREQUISITE: MUS 140, MUS 145 and concurrent enrollment in MUS 241.

MUS 241 EAR TRNG, SIGHT SING/KEYBD HARM III
[E] (F) (1.0, 2.0) 2.0
Ear Training, Sight Singing and Keyboard Harmony III teaches skills that correspond to and enhance the content of Music Theory III. (1.1-Articulated)
PREREQUISITE: MUS 141, MUS 146 and concurrent enrollment in MUS 240.

MUS 245 MUSIC THEORY IV
[E] (S) (3.0, 0.0) 3.0
Music Theory IV is a continuation of Music Theory III, with analysis of large forms in 18th and 19th century music and a study of 20th century tonalities. (1.1-Articulated)
PREREQUISITE: MUS 140, MUS 145, MUS 240 and concurrent enrollment in MUS 246.

MUS 246 EAR TRNG, SIGHT SING/KEYBD HARM IV
[E] (F) (1.0, 2.0) 2.0
Ear Training, Sight Singing and Keyboard Harmony IV teaches skills that correspond to and enhance the content of Music Theory IV. (1.1-Articulated)
PREREQUISITE: MUS 141, MUS 146, MUS 241 and concurrent enrollment in MUS 245.