siderable time is also devoted to simple Algebra and Geometry. Second semester. Credit, 3 hours.

24s—The Teaching of Arithmetic in the Primary Grades (Grades 1-3 inclusive)

The aims of Arithmetical instruction in the primary grades, and the curriculum and teaching processes through which these aims are realized. Prerequisite or parallel: Mathematics 22. Both semesters. Credit, 1 hour.

24b—The Teaching of Arithmetic in the Elementary School (Grades 4-6 Inclusive)

The aims of arithmetical instruction in the elementary school, and the curriculum and teaching processes through which these aims are realized. Prerequisite or parallel: Mathematics 22. Both semesters. Credit, 1 hour.

26—THE TEACHING OF MATHEMATICS IN THE UPPER GRADES AND JUNIOR HIGH SCHOOL (GRADES 7-9 INCLUSIVE)

The reorganization of the mathematics of the seventh, eighth and ninth school years. The aims, curriculum, and methods. Second semester. Credit, 1 hour.

66—HISTORY OF ELEMENTARY MATHEMATICS Second semester. Credit, 2 hours.

71-METHODS IN SECONDARY MATHEMATICS

This course treats of aims, organization, and methods of teaching Algebra and Geometry. Must be taken as a parallel or prerequisite to practice teaching in Secondary Mathematics. Second semester. Credit, 2 hours.

73-PLANE TRIGONOMENTRY

Prerequisite: Algebra through quadratics and Plane Geometry. First semester. Credit, 3 hours.

74-College Algebra

Prerequisite: Algebra through quadratics. Second semester. Credit, 3 hours.

76-SPHERICAL TRIGONOMETRY

Prerequisite: Mathematics 73 or equivalent. Second semester. Credit, 2 hours.

77-PLANE ANALYTIC GEOMETRY

Prerequisite: Mathematics 73-74 or equivalent. First semester. Credit, 3 hours.

78-PLANE AND SOLID ANALYTIC GEOMETRY

The general equation of the second degree and solid Analytic Geometry. Prerequisite: Mathematics 77 or equivalent. Second semester. Credit, 3 hours.

79-CALCULUS

Prerequisite: Mathematics 73, 74, and 77 or equivalent. First semester. Credit, 5 hours.

80-CALCULUS AND DIFFERENTIAL EQUATIONS

The first part of this course completes the study of the Differential and Integral Calculus started in Mathematics 79. The second part is devoted to the study of Differential Equations. Prerequisite: Mathematics 79 or equivalent. Second semester. Credit, 5 hours.

81-THEORY OF EQUATIONS

This course is based on Dickson's First Course in the Theory of Equations. Prerequisite: Mathematics 79 and 80 or equivalent. First semester. Credit, 3 hours.

82-Modern Geometry

Godfrey and Siddons' Modern Geometry is used as the text in this course. Prerequisite: Mathematics 73, 74 and 77 or equivalent. Second semester. Credit, 2 hours.

MUSIC

20-ELEMENTARY MUSIC

20a. Fundamental principles of reading by syllable; study of staff notation with bass and treble clefs, all notes and rests; dictation of simple pitch and rhythm. Credit, 1 hour.

BOWLING GREEN STATE NORMAL COLLEGE

20b. Singing and writing of major and minor scales and all chromatic syllables. Study of key signatures. Methods of teaching music in the lower grades. Prerequisite: Music 20a. Credit, 1 hour.

20c. More advanced reading. Part singing, rote songs and special attention to problems of the upper grades. Prerequisite: Music 20a and Music 20b. Credit, 1 hour.

21-SIGHT SINGING AND EAR TRAINING

Fundamental principles of pitch and rhythm as a basis for solfeggio, covering the singing of all intervals in the major and minor scales and chromatics, in combination with rhythmic types of one, two, three, and four tones to a beat and modification of the same. The recognition and representation on the staff of the above from hearing. First semester. Credit, 2 hours.

22-SIGHT SINGING AND EAR TRAINING

Continuation of Music 21 involving part singing and reading of more advanced problems in pitch and rhythm with the recognition and representation as in 21. Second semester. Credit, 2 hours.

23-Notation and Theory

Writing of major, minor and chromatic scales; use of accidentals, all clefs and key signatures, various forms of rhythm, including notes, rests, and signs. Study of terminology. Writing, naming, and singing of intervals, triads and chords of the seventh. First semester. Credit, 2 hours.

24-MELODY WRITING AND FORM

Writing of phrase, period and double period melodies illustrating tone tendencies and use of figures and motives. Study of figure, motive, phrase, period, double period, two-part form and three-part form. Second semester. Credit, 2 hours.

25-PIANO

Foundation study of piano technique. Work graded to the individual needs of the student. Individual work.

One lesson and six hours' practice per week required. First semester. Credit, 1 hour.

26-PIANO

Continuation of development of piano technique. Special attention to accompanying hymn singing. Individual work. One lesson and six hours' practice per week required. First semester. Credit, 1 hour.

27-OBSERVATION AND PARTICIPATION

Fundamental principles of Public School Music with daily observation of actual teaching in the Training School. Teaching of rote songs and the various rhythm movements. Special work with so-called monotones. Prerequisite or parallel: Music 21 and 23. First semester. Credit, 1½ hours.

28-OBSERVATION AND PARTICIPATION

Continuation of Music 27. Practice in the presentation of the various problems in the teaching of pitch and rhythm. Black-board drills, use of charts and other devices. Daily observation and actual teaching of classes in the Training School. Prerequisite: Music 27. Second semester. Credit, 1½ hours.

29-Voice

Fundamental principles of voice placing with proper breathing and enunciation. Individual and class work. One lesson and three to five hours' practice per week required. First semester. Credit, 1 hour.

30-Voice

Continuation of Music 29. Study and presentation of rote songs. Special attention to diction and phrasing. Individual and class work. One lesson and three to five hours' practice per week required. Second semester. Credit, 1 hour.

31-PIANO

Continuation of the development of piano technique. Special attention to the accompanying of children's singing. Work suited to the ability of student. Individual and class work. One lesson and six hours' practice per week required. First semester. Credit, 1 hour.

32-PIANO

Continuation of the development of piano technique. Special attention to the accompanying of solo and chorus singing. Opportunity for public performance of piano compositions when warranted by the ability of student. Individual and class work. One lesson and six hours' practice per week required. Second semester. Credit, 1 hour.

33-Voice

Development of vocal technique. Study and interpretation of simple art songs. Individual and class work. One lesson and three to five hours' practice per week required. First semester. Credit, 1 hour.

34-Voice

Continuation of Music 33. One lesson and three to five hours' practice per week required. Second semester. Credit, 1 hour.

35—HARMONY

Fundamental principles of chord structure and connection. Use of principal and subordinate chords in major and minor keys. Harmonization of simple melodies. Key-board harmonization. Prerequisite: Music 23, 24 and 49. First semester. Credit, 2 hours.

36-HARMONY

Continuation of Music 35 with use of principal and subordinate triads in all inversions in major and minor. Principal dissonant chords, inharmonic tones, modulation, and attendant chords. Harmonization of figured and unfigured basses and selected melodies. Writing of original four-part composition. Prerequisite: Music 35. Second semester. Credit, 2 hours.

37-HISTORY AND APPRECIATION

The growth of music from ancient to modern times. The study of early Christian music; pholyphony, opera, oratorio, cantata, and symphony. The significance of the Classical, Romantic and Modern schools of music. The presentation and study of standard vocal and instrumental compositions to acquaint students with the best music and enable them to listen discriminatingly. First semester. Credit, 2 hours.

38-HISTORY AND APPRECIATION

Continuation of Music 37. Second semester. Credit, 2 hours.

39-SIGHT SINGING AND EAR TRAINING

Special emphasis on part songs containing difficult modulations and complicated rhythms. Continuation of ear training. Prerequisite: Music 22. First semester. Credit, 2 hours.

40-SIGHT SINGING AND EAR TRAINING

Continuation of Music 39. Prepared and sight-reading of part songs and choruses suitable for High School Chorus and Glee Clubs. Continuation of Ear Training. Second Semester. Credit, 2 hours.

41-SPECIAL METHOD-(ELEMENTARY)

The teaching of Public School Music in the elementary grades. Outline of work to be done in each grade with practice in the presentation of all phases of Sight-singing and Theory. Prerequisite: Music 27 and 28. First semester. Credit, 2 hours.

42—SPECIAL METHOD—(SECONDARY)

Subject matter and materials for Junior and Senior High Schools. Chorus organization and conducting. Music for Glee Clubs and Contests. Prerequisite: Music 41. Second Semester. Credit, 2 hours.

44—ORCHESTRATION

Study of the instruments of the symphony orchestra, their tone, quality, and mechanism. Problems of the school orchestra, grouping of instruments, selection of music, transposition and arrangements of parts, conducting and management. Prerequisite: Music 35. Second semester. Credit, 2 hours.

45-PIANO

Continuation of the development of piano technique. Public performance as accompanist and solist. Individual and class work. One lesson and six hours' practice per week required. First semester. Credit, 1 hour.

46-PIANO

Continuation of the development of piano technique. Study of standard classics for piano and public performance of the same. Class and individual work. One lesson and six hours' practice per week required. Second semester. Credit, 1 hour.

47-Voice

Development of vocal technique. Study of art songs, selections from the standard operas and oratorios. When ability warrants, opportunity for public performance. One lesson and three to five hours' practice per week required. First semester. Credit 1 hour.

48-Voice

Continuation of Music 47. Opportunity to sing in duet, trio, and quartet. When ability warrants, public recital. One lesson and three to five hours' practice per week required. Second semester. Credit, 1 hour.

49-HARMONIC ANALYSIS

Singing and identification from hearing of triads and chords of the seventh in all positions and inversions in major and minor. Normal and deceptive resolutions of the dominant seventh in major and minor. Modulations. Harmonic analysis of hymns and part-songs with

special attention to chord structure. Prerequisite: Music 23 and 24. First semester. Credit, 2 hours.

50-ADVANCED FORM AND ANALYSIS

Study of song form with trio, sonata and rondo forms. Analysis of Mendelssohn's "Songs Without Words." Standard Sonatas for piano and larger symphonies. Prerequisite: Music 49. Second semester. Credit, 2 hours.

51-ADVANCED SIGHT SINGING

Prepared and sight-reading of standard choruses, sacred and secular in various voice combinations. Open to students who have completed Music 39 and 40 or the equivalent. First semester. Credit, 1 hour.

52-ADVANCED SIGHT SINGING

Continuation of Music 51. Prepared and sight-reading of more difficult part songs, cantatas, oratorios and various choral compositions, classical and modern. Open to students who have completed Music 39 and 40 or their equivalent. Second semester. Credit, 1 hour.

55-Survey of Public School Music

Purpose and place of Music in Public Schools. First semester. Credit, 1 hour.

56-Survey of Public School Music

Continuation of Music 55. Special emphasis on the specific aims of the teaching of Public School Music. Second Semester. Credit. 1 hour.

61-SPECIAL METHOD-(THE TEACHING OF MUSIC APPRECIATION)

The basis of Music Appreciation. Subject matter and methods of teaching Music Appreciation. Observation and teaching in the Training School. Open to students who have completed Music 41 and 42 and to teachers who have completed at least two years of special training in Public School Music. First semester. Credit, 2 hours.

Note—A fee of \$20.00 for Special Music Students and \$30.00 for all others is charged for each of the following courses: Piano 25, 26, 31, 32, 45, 46, and Voice 29, 30, 33, 34, 47, 48.

SECOND YEAR

First Semester	Second Semester
Accounting Principles 23 3 Education 21 3 History 78 3 Science 61 4 Stenography 27 2 Typing 31 1 Physical Training 29	Accounting, Managerial 24

THIRD YEAR

First Semester	Second Semester
Business Law 61	Business Law 62 3 Education 62 8 Education, 69-70 4 Office Work 36 3 Elective 2 15

ONE-YEAR SPECIAL COURSE

With the consent and advice of the Head of the Department of Commercial Education, a student desiring to spend only one year in preparation for office work may substitute business subjects for the professional subjects in the first year of the Three-Year Diploma Course.

PUBLIC SCHOOL MUSIC

FIRST YEAR

E ABOUTA	Second Semester
Applied Music (Piano 25) 1 Applied Music (Voice 29) 1 English 61	Applied Music (Piano 26)
SECONI	YEAR

DEGGET CONTRACTOR	
First Semester Applied Music (Piano 31) 1 Applied Music (Voice 33) 1 Education 21	Second Semester Advanced Form and Analysis 50 2 Applied Music (Piano 32) 1 Applied Music (Voice 34) 1 Education 66 3 Observation and Participation 28 1½ Sight-Singing and Ear Training 40 2 Elective 5 Physical Training 30 ½

THIRD YEAR

First Semester	Second Semester
Advanced Sight-Singing 51	Applied Music (Voice 48) 1 Education 70 2 Harmony 36 2 History and Appreciation of Music 38 2 History 66 3 Orchestration 44 2 Special Method (Secondary) 42 2

Applied Music includes private and class lessons in Piano, Voice and Orchestral Instruments. The amount of Applied Music required will depend upon the previous training and ability of the student. All students must present at least 10 hours in Applied Music and no student may present more than 14 hours.

TWO-YEAR DIPLOMA COURSES KINDERGARTEN-PRIMARY

(Kindergarten and Grades One to Three)

FIRST YEAR

Pinet Comester	Second Semester
### First Semester Education 21	Second Semester Education 22 3 Education 30 2 English 25 3 History 21 or 22 3 History 24a 1 Mathematics 22 3 Mathematics 24a 1
Music 20a	Music 20b

SECOND YEAR

### First or Second Semester Education 27	First or Second Semester Education 23
	151/2

INTERMEDIATE GRADE

(Grades Four to Six)

FIRST YEAR

Plant Competer	Second Semester
### Semester Education 21	Education 22 3 Education 30 2 English 25 3 History 21 or 22 3 History 24b 1 Mathematics 22 3 Mathematics 24b 1 Music 20b 1
1714	17%

CLYDE HISSONG

Director of Training School

B.S. in Education, Miami University; A.M., Columbia University. Teacher in rural and village schools; Teacher in high schools; Director of Sandhill Farm Life School, N. C.; Instructor, Teachers College, Miami University, Summer Sessions; Assistant Superintendent of Schools, Butler County, Ohio; Director of Training School, State Normal College, Bowling Green, Ohio, 1923—

WILLIAM PEARCE HOLT

Department of Geography

A. B., Oberlin College; Graduate Student, University of Chicago, Cornell University, Columbia University. Teacher in Ashtabula and Toledo, Ohio, High Schools; Acting Head of Department of Biology and Geography, Central Commercial and Manual Training School, Newark, N. J. President, Ohio Association of Science and Mathematics Teachers. Head of Department of Geography, State Normal College, Bowling Green, Ohio, 1915—

HELEN L. HOUSEHOLDER

Critic Teacher, City Schools

Diploma, State Normal College, Bowling Green, Ohio. Teacher in public schools, Grand Rapids and Perrysburg, Ohio; Critic Teacher, city schools, second grade, State Normal College, Bowling Green, Ohio, 1925—

E. G. KNEPPER

Department of Commercial Education

A. B., B. S. in Education, Ohio State University; Graduate Student, Johns Hopkins and Chicago Universities. Principal and Superintendent of public schools; banking experience, Kokomo, Ind.; Head of Teacher-Training Department, Bliss Business College, Columbus, Ohio; Head of Department of Commercial Education, State Normal College, Bowling Green, Ohio, 1923—

CLAYTON CHARLES KOHL

Department of Social Science

Ph. B., Ohio State University; Ph. M., Ph. D., New York University. Principal of High School and Superintendent of Schools, Mechanicsburg, Ohio; Tutor in History, City College of New York; Professor of Education, Mount Holyoke College; Professor of Secondary Education, New York University; Director of Teacher-Training School, Toledo, Ohio. Member of Phi Beta Kappa. Head of Department of Social Science, State Normal College, Bowling Green, Ohio, 1920—

PAUL E. LANDIS

Instructor in Physical Education

A. B., Oberlin College. Supervisor of Physical Education, public schools, Portsmouth, Virginia; Instructor in Physical Education, State Normal College, Bowling Green, Ohio 1925—

MARY P. LOOMIS

Instructor in Music

Diploma in Music, Muskingum College, New Concord, Ohio; Diploma in Public School Music, State Normal College, Bowling Green, Ohio; Student, Conservatory of Music, Northwestern University. Supervisor of Music, Newton Falls, Ohio and Miami, Florida; Instructor in Music, State Normal College, Bowling Green, Ohio, 1925-1927.

REA MCCAIN

Department of English

A. B., National Normal University; A. B., Antioch College; A. M., Columbia University; Graduate Student, University of Chicago and University of Michigan. Teacher in rural and village schools; Teacher, third grade, Lebanon, Ohio; Teacher in High School, Lebanon, Ohio; Instructor in English, National Normal University; Teacher of English in High School, Fremont, Ohio; Instructor, Wooster Summer School; Head of Department of English, State Normal College, Bowling Green, Ohio, 1914—

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C. S. MARTIN

Department of Physics and Chemistry

Ph. D., Ohio State University. Teacher in high schools of West Virginia and Ohio; Instructor in Chemistry, Ohio State University; Head of Department of Physics and Chemistry, State Normal College, Bowling Green, Ohio, 1923—

LENA I. MILLS

Critic Teacher

Diploma, College of Education, Ohio University; B.S., Teachers College, Columbia University. Teacher in public schools of Middletown and Akron, Ohio; Critic Teacher, sixth grade, State Normal College, Bowling Green, Ohio, 1924—

MATILDA MORLOCK

Instructor in Music

Diploma, State Normal School, Milwaukee, Wisconsin; Diploma, Crane Normal Institute of Music, Potsdam, N. Y.; B. S. M., North Carolina College for Women, Greensboro, N. C.; A. M., Columbia University; Supervisor's Diploma, Teachers College, Columbia University. Teacher in primary grades, Milwaukee, Wis; Supervisor of Music, Public Schools, Oshkosh, Wis.; Instructor in Music, North Carolina College for Women, Greensboro, N. C.; Instructor in Music, State Normal College, Bowling Green, Ohio 1926—

EDWIN L. MOSELEY

Department of Biology

A. M., University of Michigan. Teacher of Science in High Schools, Grand Rapids, Mich., and Sandusky, Ohio. Fellow of Steere Scientific Expedition to the Philippines; Fellow of American association for the Arvancement of Science; Secretary, Ohio Academy of Science; President, Ohio Academy of Science. Head of Department of Biology, State Normal College, Bowling Green, Ohio, 1914—

MORRIS MUSKAT

Instructor in Physics

A.B., A. M., Ohio State University; Graduate Student, University of Chicago. Graduate Assistant in Physics, Ohio State University; Instructor in Physics, State Normal College, Bowling Green, Ohio, 1926-1927.

CAROLINE NIELSEN

Department of Foreign Language

A.B., A.M., University of Nebraska; Graduate Student, Summer session, University of Chicago; Studied in Europe and in the Berlitz School of Foreign Language, Chicago. Head of Latin Department, Kearney High School, Nebraska; Principal of Wahoo High School, Nebraska; Instructor in Joliet Junior College, Joliet, Ill. Member of Phi Beta Kappa. Head of Department of Foreign Language, State Normal College, Bowling Green, Ohio, 1918—

NELLIE OGLE

Instructor in Stenography

A.B., University of Iowa; Normal Certificate, Gregg School, Chicago. Teacher in High Schools of Wauconda and Mooseheart, Ill., and Bedford and Des Moines, Iowa; Instructor in Stenography, State Normal College, Bowling Green, Ohio, 1926—

EMILY M. ORDWAY

Critic Teacher, City Schools

Diploma, State Normal College, Bowling Green. Ohio; Student, Summer Sessions, Chicago University and State Normal College, Bowling Green, Ohio. Teacher in public schools, Bowling Green, Ohio; Critic Teacher, city schools, first grade, State Normal College, Bowling Green, Ohio, 1925—

JAMES ROBERT OVERMAN Department of Mathematics

A. B., Indiana University; A. M., Columbia University; Master's Diploma, Teachers College, Columbia University;

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M. G. SCHECK

Instructor in Psychology

A. B., University of Rochester; A. M., Princeton University; Ph. D., Cornell University. Assistant in Psychology, Princeton; Graduate Fellow, Cornell; Instructor in Psychology, Summer Sessions, Rochester; Professor of Psychology, Drake University; Professor of Psychology, Summer Session, Ames Agricultural College Iowa. Member Phi Delta Kappa, and Sigma Xi, Fellow of the Iowa Academy of Science; Instructor in Psychology, State Normal College, Bowling Green, Ohio, 1926-1927.

JOHN SCHWARZ

Instructor in Social Science

A.B., Miami University; A.M., University of Chicago; Graduate Student, Columbia University. Superintendent of village and city schools; Principal of Training School, Miami University; Superintendent of Schools, Butler County, Ohio; Instructor in Social Science, State Normal College, Bowling Green, Ohio, 1923—

MAUDE F. SHARP

Dean of Women

B. S., National Normal University; A. B., A. M., Syracuse University. Teacher in rural schools; Director, County Normal School, Waterford, Ohio; Teaching Fellow, Syracuse University; Dean of Women, State Normal College, Bowling Green, Ohio, 1918—

*CAROLYN SHAW

Instructor in Physical Education

A.B., Smith College; B.S., Simmons College; Certificate in Physical Education, Wellesley College; A.M., Teachers College, Columbia University. Director of Physical Education, West Side Y.W.C.A., New York City, and Y.W.C.A., Dayton, Ohio; Instructor in Physical Education, State Normal College, Bowling Green, Ohio, 1923—

NELLE SHULER Instructor in Music

A. B., Bluffton College; Student, American Conservatory of Music, Chicago, Illinois. Supervisor of Music, Marseilles, Illinois; Instructor in Music, State Normal College, Bowling Green, Ohio, 1925-1927.

*WARREN E. STELLER

Department of Physical Education

A. B., Oberlin College; A. M., Teachers College, Columbia University. Instructor in Physical Education, Oberlin College and Connecticut Wesleyan University; Instructor in Physical Education, State Normal College, Bowling Green, Ohio, 1924—

FRANCIS E. TAYLOR Instructor in Mathematics

B. S., Illinois College; A. M., University of Illinois; Graduate Student. Summer Session, University of Chicago. Teacher in High School, Dallas City, Illinois; Instructor, St. John's Military Academy; Assistant, Department of Mathematics, University of Illinois; Instructor in Mathematics, University of Arkansas: Instructor in Mathematics, State Normal College, Bowling Green, Ohio, 1925—

RICHARD MORTON TUNNICLIFFE Department of Music

Diploma and Graduate Student, State Normal School, Oshkosh, Wis.; A.B., and Graduate Student, University of Wisconsin; Diploma, Crane Normal Institute of Music, Potsdam, N.Y.; Extensive study of Piano, Organ, and Voice, Minneapolis, Chicago, and New York. Teacher of Mathematics and Music, New London, Wis.; Supervisor of Practice Teaching, and Teacher of Methods and Education, Crane Normal Institute of Music and State Normal School, Potsdam, N.Y.; Leader, Festival Chorus and Normal Orchestra, Potsdam, N.Y.; State Institute Instructor in Music, N.Y.; Professor of Music, Summer Session, Ohio State University; Head of Department of Music, State Normal College, Bowling Green. Ohio. 1920—

^{*}Absent on leave, second semester, 1926-27, graduate student, Columbia University.

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