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Foreword

The Illinois Secondary Course Catalog (ISCC) outlines a coding system and course descriptions for secondary education. The catalog is intended to help schools and education agencies collect and maintain longitudinal information about students’ coursework in an efficient, standardized format that facilitates the exchange of records as students transfer from one school to another, or to postsecondary education.

Illinois developed the ISCC based upon the work of the Secondary School Course Classification System: School Codes for the Exchange of Data (SCED) developed by the National Center for Education Statistics (NCES).

The work of Illinois schools with the ISCC provides for the routine collection of information to help the education system function efficiently and effectively. Standardized data available to education agency officials can:

- assist in the development of sound educational policies at all levels;
- improve the quality of instruction and boost student achievement;
- help compare information among communities and among states;
- improve the accuracy and timeliness of nationwide summaries of information about education systems;
- improve the quality and significance of education research—locally, statewide, and nationwide; and
- enhance reporting to the public about the condition and progress of education.

The Illinois State Board of Education (ISBE) acknowledges the significant contributions of the SCED in its development of the Illinois Secondary Course Catalog.
Introduction

Developing a System for Classifying Secondary Courses

In the summer of 2003, the National Center for Education Statistics (NCES) initiated work to develop a common classification system for secondary school courses in the United States. The resulting Secondary School Course Classification System: School Codes for Exchange of Data (SCED) is the foundation work for the Illinois Secondary Course Catalog (ISCC). The primary purpose of the ISCC system is to make it easier for school districts and states to maintain longitudinal student records electronically, and to transmit course taking information from one student information system to another, from one school district to another, and from a school district to ISBE. As substantial numbers of states and entities adopt coding systems, it will produce a secondary benefit: standardized course information for those who evaluate transcripts for postsecondary admission or research purposes.

More specifically, a common classification system for secondary school courses would achieve the following:

- enable comparison of course offerings among districts and states;
- facilitate the use of electronic student transcripts;
- support longitudinal student information systems;
- encourage interoperability of student information and other data management systems by providing a standard for education software designers and vendors;
- reduce the cost and burden of transcript studies; and
- encourage the use of course taking information in research and evaluation of student outcomes.

Illinois Longitudinal Data System

The Illinois Longitudinal Data System, including The Transcript Coding Project, is also designed to meet the following needs:

- implement all of the America COMPETES Act elements;
- support a broad array of state and LEA education functions; and,
- collect PK-20 individual student data.

The Illinois Secondary Course Catalog (ISCC)

The ISCC has been developed between in response to the requirements of Illinois legislative action and the Illinois Longitudinal Data System. It provides a listing of over 1,400 Illinois high school course codes. The Illinois K-8 Course Catalog will be available by summer 2010. Course code matching and data collection efforts for middle school courses will not begin until the 2011-2012 school year.
Use and Users of the ISCC Classification System

Uses within the education system - A common course classification system assists states developing statewide longitudinal data systems to meet the reporting requirements of local and state mandates, as well as those of No Child Left Behind. Without a statewide course classification system, it can be very burdensome to collect and interpret information from school districts about student course taking and the qualifications of teachers responsible for those courses.

Once fully developed, a course classification system can be of benefit when a secondary student transfers from one district to another. Currently, a transferring student’s course history must be reviewed meticulously to determine if the courses named on a transcript are the same as, or acceptably similar to, courses offered in the new district. The effort of these painstaking reviews is multiplied when many students transfer into a single school.

A major objective of the ISCC is to provide common course descriptions that enable school counselors to compare courses more easily when reviewing the transcript of a transferring student. A common system for describing courses saves the counselor’s time and ensures that the student is placed in appropriate classes without delay.

Postsecondary institutions need information about students and their coursework, typically to determine students’ eligibility for enrollment, financial assistance, and eventual placement. For example, the National Collegiate Athletic Association (NCAA) uses secondary course information to determine a student’s eligibility for postsecondary athletic programs. A completed Longitudinal Data System, with appropriate privacy law safeguards built into it, can provide common transcript information to help postsecondary institutions and organizations fairly evaluate the course taking patterns of any high school student.

Involvement of the education software community - “Interoperability” in data management systems means that information can be transferred from one system to others with no effort on the part of a user. In a school district, for example, interoperable software applications would ensure that when the name and address of a new student are entered into the system once, the information also appears in the district’s library, class assignment, transportation, food service, student information management, and other relevant systems. ISCC provides a standard course coding framework for vendors of school information systems who are working toward interoperability. As vendors become aware of the ISCC, the course coding structure and definitions can be included in student information systems or used to form a common “crosswalk” from one system to another.

Facilitating the research use of transcript data - Researchers and policymakers represent another important use of course-related information. Education researchers typically want to identify trends in course taking and in students’ access to educational experiences, examine links between practice and desired outcomes, and analyze differences between subsets of students. Data about courses are combined with information about the students and their teachers, schools, parents, and communities in a number of ways.

Illinois, like many other states, is developing a longitudinal student data system in order to measure the added value of education to students as they move through the education pipeline. Information about the courses that students take, and their performance in these courses, is vital to understanding the effects of education—but almost impossible to measure without a standard system for describing courses. The ISCC provides comparability for that effort and can greatly reduce the time it takes to review course information.
ISCC Course Listing

01 English Language Arts

01001A000  English/Language Arts I (9th grade)
English/Language Arts I (9th grade) courses build upon students’ prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing and usually include the four aspects of language use: reading, writing, speaking, and listening. Typically, these courses introduce and define various genres of literature, with writing exercises often linked to reading selections.

01002A000  English/Language Arts II (10th grade)
English/Language Arts II (10th grade) courses usually offer a balanced focus on composition and literature. Typically, students learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of literature, students can improve their reading rate and comprehension and develop the skills to determine the author’s intent and theme and to recognize the techniques used by the author to deliver his or her message.

01003A000  English/Language Arts III (11th grade)
English/Language Arts III (11th grade) courses continue to develop students’ writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature, which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

01004A000  English/Language Arts IV (12th grade)
English/Language Arts IV (12th grade) courses blend composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Typically, students primarily write multi-paragraph essays, but they may also write one or more major research papers.

01005A000  AP English Language and Composition
Following the College Board’s suggested curriculum designed to parallel college-level English courses, AP English Language and Composition courses expose students to prose written in a variety of periods, disciplines, and rhetorical contexts. These courses emphasize the interaction of authorial purpose, intended audience, and the subject at hand, and through them, students learn to develop stylistic flexibility as they write compositions covering a variety of subjects that are intended for various purposes.

01006A000  AP English Literature and Composition
Following the College Board’s suggested curriculum designed to parallel college-level English courses, AP English Literature and Composition courses enable students to develop critical standards for evaluating literature. Students study the language, character, action, and theme in works of recognized literary merit; enrich their understanding of connotation, metaphor, irony, syntax, and tone; and write compositions of their own (including literary analysis, exposition, argument, narrative, and creative writing).

01007A000  IB Language A (English)
IB Language A (English) courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors and written analyses of this literature in addition to other oral and written assignments. All course content is designed to improve students’ accuracy and fluency in the English language.
01008A000  English as a Second Language
English as a Second Language (ESL) courses are designed for the rapid mastery of the English language, focusing on reading, writing, speaking, and listening skills. ESL courses usually begin with extensive listening and speaking practice, building on auditory and oral skills, and then move on to reading and writing. These courses provide an explanation of basic structures of the English language, enabling students to progress from an elementary understanding of English words and verb tenses to a more comprehensive grasp of various formal and informal styles and then to advance to “regular” English courses. ESL classes may also include an orientation to the customs and culture of the diverse population in the United States.

01009A000  Language Arts Laboratory
Language Arts Laboratory courses provide instruction in basic language skills, integrating reading, writing, speaking, and listening, while placing great emphasis on the progress of individual students. Course content depends upon students’ abilities and may include vocabulary building, improving spelling and grammar, developing writing and composition skills, reading silently or aloud, and improving listening and comprehension abilities.
01051A000  English/Literature (freshmen and sophomores)
English/Literature (freshmen and sophomores) courses are designed for freshmen and/or sophomores and typically introduce them to two or more genres of literature (novel, short story, poetry, and so on). Exploration of each genre's literary elements; determination of theme and intent; and examination of vocabulary and semantics are often included in the course content. Writing assignments are required as an additional method to improve understanding and comprehension.

01052A000  English/Literature (juniors and seniors)
English/Literature (juniors and seniors) courses are designed for juniors and/or seniors and emphasize comprehension, discernment, and critical-thinking skills in the reading of texts and literature. These courses introduce and explore more advanced literary techniques (irony, satire, humor, connotation, tone, rhythm, symbolism, and so on) through two or more literary genres, with the aim of creating sophisticated readers. Writing assignments are required as an additional method to develop and improve critical-thinking and analytic skills.

01053A000  Literature
Literature courses offer the opportunity for students to study and reflect upon the themes presented in the body of literature being presented. Students improve their critical-thinking skills as they determine the underlying assumptions and values within the reading selection and as they understand how the work reflects society's problems and culture. Oral discussion is an integral part of literature courses, and written compositions are often required. Literature courses may survey representative works, reflect a particular genre or a specific theme, or survey works of a particular time or people.

01054A000  American Literature
American Literature courses focus upon commonly known American authors and their work. Students improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses, and written compositions are often required.

01055A000  American Literature/History
American Literature/History courses integrate the study of American literature with an overview of U.S. history. These courses may also include other aspects of American culture, such as art or music. A two-year sequence or two-period per day class may be required to cover the same objectives as would be covered separately in U.S. History Overview and American Literature.

01056A000  British Literature
British Literature courses may provide a survey of British literature or may focus on a selected timeframe of England's history. Students improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses, and written compositions are often required.

01057A000  British Literature/History
British Literature/History courses integrate the study of British literature with an overview of the history of England. These courses may also include other aspects of British culture, such as art or music. A two-year sequence or two-period per day class may be required to cover the same objectives as would be covered separately in English History Overview and British Literature.

01058A000  World Literature
World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. Students improve their critical-thinking skills as they comprehend the diversity of literary traditions
and the influences of those traditions. Oral discussion is an integral part of literature courses, and written compositions are often required.

01059A000  Biblical Literature
Biblical Literature courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), focusing on the books of the Bible. Students may compare techniques, styles, and themes of the various books; examine the Bible’s influence on secular literature; and may study historical events of Biblical times. Oral discussion is an integral part of these courses, and written compositions are often required.

01060A000  Literature of an Author
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), focusing on a particular author and his or her work. Students determine the underlying assumptions and values within the selected works; compare techniques, styles, and themes of the author; and reflect upon the time period in which the author lived. Oral discussion is an integral part of literature courses, and written compositions are often required.

01061A000  Literature of a Genre
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), focusing on one or several genres, such as poetry, essay, biography, short story, drama, and so on. Students determine the underlying assumptions and values within the selected works and also examine the structure, techniques, and intentions of the genre being studied. Oral discussion is an integral part of these genre-oriented courses, and written compositions are often required.

01062A000  Literature of a Period
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), focusing on the literature written during or reflecting a particular time period (such as the French Revolution, the 1960s, or the 20th century). Students determine the underlying assumptions and values within the selected works, reflect upon the influence of societal events and social attitudes, and compare the points of view of various authors. Oral discussion is an integral part of literature courses, and written compositions are often required.

01063A000  Literature of a Place
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), focusing on a particular geographic region. Students determine the underlying assumptions and values within the selected works; study how the literature reflects the land, society, and history of the region; and may study the influence of this literature on others. Oral discussion is an integral part of literature courses, and written compositions are often required.

01064A000  Literature of a People
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), but use literature written by authors who share a particular characteristic such as religion, culture, or gender. Students determine the underlying assumptions and values within the selected works, reflect upon the influence of a common characteristic, and compare the points of view of various authors. Oral discussion is an integral part of literature courses, and written compositions are often required.

01065A000  Literature of a Theme
These courses have the same aim as general literature courses (to improve students’ language arts and critical-thinking skills), but use selected literature to explore a particular theme as expressed from several points of view. Such themes might include The American Dream, Society and Self, Exploration, War and Peace, and the like.

01066A000  Strategic Reading
Strategic Reading courses are intended to improve a student’s vocabulary, critical-thinking and analysis skills, or reading rate and comprehension level. Although these courses typically emphasize works of fiction, they may also include works of nonfiction (including textbooks). Strategic Reading courses often have a time-management focus, offering strategies for note-taking or for understanding and evaluating the important points of a text.

**01067A000 Assisted Reading**
Assisted Reading courses offer students the opportunity to focus on their reading skills. Assistance is targeted to students’ particular weaknesses and is designed to bring students’ reading comprehension up to the desired level or to develop strategies to read more efficiently.

**01068A000 Corrective Reading**
Corrective Reading courses offer diagnostic and remedial activities designed to correct reading difficulties and habits that interfere with students’ progress in developing reading skills and understandings. Activities are chosen to increase or improve students’ reading comprehension, reading technique, and general literacy skills.

**01097A000 Literature—Independent Study**
Courses in Literature—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to literature. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

**01098A000 Literature—Workplace Experience**
Literature—Workplace Experience courses provide work experience in a field related to English literature. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**9A000 Literature—Other**
Other Literature courses.

**01101A000 English/Composition (freshmen and sophomores)**
English/Composition (freshmen and sophomores) courses are designed for freshmen and/or sophomores and build upon previous writing skills. These courses seek to develop the writing processes and practices necessary for producing successful high school compositions. Students typically learn to write persuasive, critical, and creative multi-paragraph essays and compositions. While emphasizing composition, these courses may also incorporate some literary study to expose students to exemplary illustrations of various forms of writing.

**01102A000 English/Composition (juniors and seniors)**
English/Composition (juniors and seniors) courses are designed for juniors and/or seniors and build upon previous writing skills. Reinforcing the logic and critical-thinking skills that accompany good writing, these courses—which emphasize word choice, usage, and writing mechanics—provide continued and advanced instruction in writing for a variety of purposes and audiences. English/Composition (juniors and seniors) courses may emphasize college or business preparation; literature study may be offered as an additional component in which students analyze examples of several genres.

**01103A000 Composition**
Composition courses focus on students’ writing skills and develop their ability to compose different types of papers for a range of purposes and audiences. These courses enable students to explore and practice descriptive, narrative, persuasive, or expository styles as they write paragraphs, essays, letters, applications, formal documented papers, or technical reports. Although composition courses may present some opportunities for creative writing, their focus usually remains on nonfiction, scholarly, or formal writing.
01104A000 Creative Writing
Creative Writing courses offer students the opportunity to develop and improve their technique and individual style in poetry, short story, drama, essays, and other forms of prose. The emphasis of the courses is on writing; however, students may study exemplary representations and authors to obtain a fuller appreciation of the form and craft. Although most creative writing classes cover several expressive forms, others concentrate exclusively on one particular form (such as poetry or playwriting).

01105A000 Research/Technical Writing
Research/Technical Writing classes prepare students to write research papers and/or technical reports. These classes emphasize researching (primary and secondary sources), organizing (material, thoughts, and arguments), and writing in a persuasive or technical style.

01106A000 AP Research
Designed by the College Board, AP research allows to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a yearlong mentored, research based investigation to address a research question. In the AP research course, students further their skills acquired in the AP Seminar course by understanding research methods; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. The course culminates in an academic thesis paper of approximately 5,000 words and a presentation, performance, or exhibition with an oral defense.

01147A000 Composition—Independent Study
Composition—Independent study, often conducted with instructors as mentors, allow students to explore particular topics within the field of language arts (emphasizing composition). Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

01148A000 Composition—Workplace Experience
Composition—Workplace Experience courses provide work experience in a field related to English composition. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

01149A000 Composition—Other
Other Composition courses.

01151A000 Public Speaking
Public Speaking courses enable students, through practice, to develop communication skills that can be used in a variety of speaking situations (such as small and large group discussions, delivery of lectures or speeches in front of audiences, and so on). Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique, and development of self-confidence.
**01152A000  Forensic Speech—Inclusive**
Forensic Speech—Inclusive courses offer students the opportunity to learn how to use oral skills effectively in formal and informal situations. Students learn such skills as logic and reasoning, the organization of thought and supporting materials, and effective presentation of one’s voice and body. Often linked to an extracurricular program, these courses introduce students to numerous public speaking situations, and they learn the methods, aims, and styles of a variety of events (e.g., formal debate, Lincoln-Douglas debate, expository speaking, radio broadcast, oral interpretation, and dramatic interpretation). Participation in competition is encouraged, but not always required.

**01153A000  Forensic Speech—Debate**
Forensic Speech—Debate courses offer students the opportunity to learn how to use oral skills in formal and informal situations. In these courses, students are able to develop such skills as logic and reasoning, research and analysis, organization of thought and supporting materials, argumentative style and skill, and effective presentation of one’s voice and body. Often linked to an extracurricular program, these courses introduce students to the methods, aims, and styles used in various kinds of debates (formal debate or Lincoln-Douglas). Participation in competition is encouraged, but not always required.

**01154A000  Forensic Speech—Individual Event**
Forensic Speech—Individual Event courses offer students the opportunity to learn how to use oral skills in formal and informal situations. Topics included depend upon the event(s) being taught, but they usually emphasize effective presentation of one’s voice and body, thoughtful understanding and interpretation of literature, logic and reasoning, and the organization of thought and supporting materials. Often linked to an extracurricular program, these courses introduce students to one or several individual event categories (e.g., exposition, oral interpretation, dramatic interpretation, and radio broadcast). Participation in competition is encouraged, but not always required.

**01155A000  Communications**
Communications courses focus on the application of written and oral communication skills through a variety of formal and informal experiences. The courses are performance-based and emphasize effective interpersonal and team-building skills. Communications courses may also involve the study of how interpersonal communications are affected by stereotypes, nonverbal cues, vocabulary, and stylistic choices.

**01156A000  Applied English and Communications**
Applied English and Communications courses teach students communication skills—reading, writing, listening, speaking—concentrating on “real-world” applications. These courses usually emphasize the practical application of communication as a business tool—using technical reports and manuals, business letters, resumes, and applications as examples—rather than emphasize language arts skills as applied to scholarly and literary materials.

**01197A000  Speech—Independent Study**
English Language and Literature—Independent study courses, often conducted with instructors as mentors, allow students to explore particular topics within the field of language arts (emphasizing speech). Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

**01198A000  Speech—Workplace Experience**
Speech—Workplace Experience courses provide work experience in a field related to public speaking and speech. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**01199A000  Speech—Other**
Other Speech courses.

**01201A000  English Morphology and Grammar**
English Morphology and Grammar courses involve the study of the English language—its roots and derivations, structure and sentence patterns, dialects, writing and spelling systems, and uses as a communication tool.

**01202A000  History of the English Language**
History of the English Language courses trace the development of English, concentrating on historical and cultural influences and how the language has changed over time. Although language roots, structures, and dialects may be examined, the emphasis remains on the process of language development rather than on morphology.
01203A000  English—Test Preparation
English—Test preparation courses provide students with activities in analytical thinking and with the skills and strategies associated with standardized test taking. Topics covered include vocabulary, reading comprehension, and writing strategies, as well as time management, scoring procedures, and dealing with stress. Course materials may include ACT, SAT and PSAT review materials, current assessment software programs, and previous standardized examinations.

01992A000  English Proficiency Development
English Proficiency Development courses are designed to assist students in acquiring the skills necessary to pass proficiency examinations.

01995A000  English Language and Literature—Aide
English Language and Literature—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

01997A000  English Language and Literature—Independent Study
English Language and Literature—Independent study courses, often conducted with instructors as mentors, allow students to explore particular topics within the field of language arts. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

01998A000  English Language and Literature—Workplace Experience
English Language and Literature—Workplace Experience courses provide students with work experience in a field related to English language or literature. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

01999A000  English Language and Literature—Other
Other English Language and Literature courses.
02 Mathematics

02001A000 Informal Mathematics
Informal Mathematics courses emphasize the teaching of mathematics as problem solving, communication, and reasoning, and highlight the connections among mathematical topics and between mathematics and other disciplines. These courses approach the teaching of general math, pre-algebra, and pre-geometry topics by applying numbers, and algebraic and geometric concepts and relationships to real world problems.

02002A000 General Math
General Math courses reinforce and expand students’ foundational math skills, such as arithmetic operations using rational numbers; area, perimeter, and volume of geometric figures, congruence and similarity, angle relationships, the Pythagorean theorem, the rectangular coordinate system, sets and logic, ratio and proportion, estimation, formulas, solving and graphing simple equations and inequalities.

02003A000 Particular Topics in Foundation Math
These courses examine particular topics in Foundation math, such as arithmetic or basic conceptual skills, rather than provide a general overview.

02047A000 Foundation Math—Independent Study
Foundation Math—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to foundation mathematics. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

02049A000 Foundation Math—Other
Other Foundation Math courses.

02051A000 Pre-Algebra
Pre-Algebra courses increase students’ foundational math skills and prepare them for Algebra I by covering a variety of topics, such as properties of rational numbers (i.e., number theory), ratio, proportion, estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first-degree equations and inequalities.

02052A000 Algebra I
Algebra I courses include the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.

02053A000 Algebra I—Part 1
The first part in a multi-part sequence of Algebra I. This course generally covers the same topics as the first semester of Algebra I, including the study of properties of rational numbers (i.e., number theory), ratio, proportion, and estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first degree equations and inequalities.

02054A000 Algebra I—Part 2
The second part in a multi-part sequence of Algebra I. This course generally covers the same topics as the second semester of Algebra I, including the study of properties of the real number system and operations, evaluating rational algebraic expressions, solving and graphing first degree equations and inequalities, translating word problems into
Transition Algebra

Transition Algebra courses review and extend algebra and geometry concepts for students who have already taken Algebra I and Geometry. Transition Algebra courses include a review of such topics as properties and operations of real numbers; evaluation of rational algebraic expressions; solutions and graphs of first degree equations and inequalities; translation of word problems into equations; operations with and factoring of polynomials; simple quadratics; properties of plane and solid figures; rules of congruence and similarity; coordinate geometry including lines, segments, and circles in the coordinate plane; and angle measurement in triangles including trigonometric ratios.
Algebra II course topics typically include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.

Algebra III courses review and extend algebraic concepts for students who have already taken Algebra II. Course topics include (but are not limited to) operations with rational and irrational expressions, factoring of rational expressions, linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, properties of higher degree equations, and operations with rational and irrational exponents. The courses may introduce topics in discrete math, elementary probability and statistics; matrices and determinants; and sequences and series.

These courses examine a specific topic in algebra, such as linear equations or rational numbers, rather than provide an overview of algebra concepts.

Integrated Math—multi-year equivalent courses emphasize the teaching of mathematics as problem solving, communication, and reasoning, and emphasize the connections among mathematical topics and between mathematics and other disciplines. The multi-period sequence of Integrated Math replaces the traditional Algebra I, Geometry, Algebra II sequence of courses, and usually covers the following topics during a three- or four-year sequence: algebra, functions, geometry from both a synthetic and an algebraic perspective, trigonometry, statistics and probability, discrete mathematics, the conceptual underpinnings of calculus, and mathematical structure.

Other Algebra courses.

Informal Geometry courses emphasize a practical approach to the study of geometry and deemphasize an abstract, formal approach. Topics typically include properties of and work with plane and solid figures; inductive methods of reasoning and use of logic; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

Geometry courses, emphasizing an abstract, formal approach to the study of geometry, typically include topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

Analytic Geometry courses include the study of the nature and intersection of lines and planes in space, including vectors, the polar coordinate system, equations and graphs of conic sections, rotations and transformations, and parametric equations.

Principles of Algebra and Geometry courses combine the study of some pre-algebra and algebra topics with
introductory geometry topics. These courses include the study of formulas, algebraic expressions, first degree equations and inequalities, the rectangular coordinate system, area, perimeter, and volume of geometric figures, and properties of triangles and circles.

02075A000  Particular Topics in Geometry
These courses examine specific topics in geometry, such as solid or technical geometry, rather than provide a general study of the field of geometry.

02079A000  Geometry—Other
Other Geometry courses.
02101A000  Number Theory
Number Theory courses review the properties and uses of integers and prime numbers, and extend this information to congruences and divisibility.

02102A000  Discrete Mathematics
Discrete Mathematics courses include the study of topics such as number theory, discrete probability, set theory, symbolic logic, Boolean algebra, combinatorics, recursion, basic algebraic structures and graph theory.

02103A000  Trigonometry
Trigonometry courses prepare students for eventual work in calculus and typically include the following topics: trigonometric and circular functions; their inverses and graphs; relations among the parts of a triangle; trigonometric identities and equations; solutions of right and oblique triangles; and complex numbers.

02104A000  Math Analysis
Math Analysis courses include the study of polynomial, logarithmic, exponential, and rational functions and their graphs; vectors; set theory; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity. They may also include some study of trigonometry and/or pre-calculus topics.

02105A000  Trigonometry/Math Analysis
Covering topics of both Trigonometry and Math Analysis, these courses prepare students for eventual work in calculus. Topics typically include the study of right trigonometric and circular functions, inverses, and graphs; trigonometric identities and equations; solutions of right and oblique triangles; complex numbers; numerical tables; polynomial, logarithmic, exponential, and rational functions and their graphs; vectors; set theory; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

02106A000  Trigonometry/Algebra
Trigonometry/Algebra courses combine trigonometry and advanced algebra topics, and are usually intended for students who have attained Algebra I and Geometry objectives. Topics typically include right trigonometric and circular functions, inverses, and graphs; trigonometric identities and equations; solutions of right and oblique triangles; complex numbers; numerical tables; field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; and properties of higher degree equations.

02107A000  Trigonometry/Analytic Geometry
Covering topics of both Trigonometry and Analytic Geometry, these courses prepare students for eventual work in calculus. Topics include the study of right trigonometric and circular functions, inverses, and graphs; trigonometric identities and equations; solutions of right and oblique triangles; complex numbers; numerical tables; vectors; the polar coordinate system; equations and graphs of conic sections; rotations and transformations; and parametric equations.

02108A000  Math Analysis/Analytic Geometry
Covering topics from both Math Analysis and Analytic Geometry, these courses prepare students for eventual work in calculus. Topics include the study of polynomial, logarithmic, exponential, and rational functions and their graphs; vectors; set theory; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity; the polar coordinate system; equations and graphs of conic sections; rotations and transformations; and parametric equations.
02109A000 Elementary Functions
Elementary Functions courses, while preparing students for eventual work in calculus, include the study of relations and functions, including polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their inverses, graphs, and applications.

02110A000 Pre-Calculus
Pre-Calculus courses combine the study of Trigonometry, Elementary Functions, Analytic Geometry, and Math Analysis topics as preparation for calculus. Topics typically include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.
02111A000 Linear Algebra
Linear Algebra courses include a study of matrices, vectors, tensors, and linear transformations and are typically intended for students who have attained pre-calculus objectives.

02112A000 Linear Programming
Linear Programming courses include a study of mathematical modeling and the simplex method to solve linear inequalities and are typically intended for students who have attained pre-calculus objectives.

02113A000 Abstract Algebra
Abstract Algebra courses include a study of the properties of the number system from an abstract perspective, including such topics as number fields (i.e., rational, real, and complex numbers), integral domains, rings, groups, polynomials, and the fundamental theorem of algebra. Abstract Algebra is typically geared towards students who have attained pre-calculus objectives.

02121A000 Calculus
Calculus courses include the study of derivatives, differentiation, integration, the definite and indefinite integral, and applications of calculus. Typically, students have previously attained knowledge of pre-calculus topics (some combination of trigonometry, elementary functions, analytic geometry, and math analysis).

02122A000 Multivariate Calculus
Multivariate Calculus courses include the study of hyperbolic functions, improper integrals, directional directives, and multiple integration and its applications.

02123A000 Differential Calculus
Differential Calculus courses include the study of elementary differential equations including first- and higher-order differential equations, partial differential equations, linear equations, systems of linear equations, transformations, series solutions, numerical methods, boundary value problems, and existence theorems.

02124A000 AP Calculus AB
Following the College Board's suggested curriculum designed to parallel college-level calculus courses, AP Calculus AB provides students with an intuitive understanding of the concepts of calculus and experience with its methods and applications. These courses introduce calculus and include the following topics: elementary functions; properties of functions and their graphs; limits and continuity; differential calculus (including definition of the derivative, derivative formulas, theorems about derivatives, geometric applications, optimization problems, and rate-of-change problems); and integral calculus (including antiderivatives and the definite integral).

02125A000 AP Calculus BC
Following the College Board's suggested curriculum designed to parallel college-level calculus courses, AP Calculus BC courses provide students with an intuitive understanding of the concepts of calculus and experience with its methods and applications, and also require additional knowledge of the theoretical tools of calculus. These courses assume a thorough knowledge of elementary functions, and cover all of the calculus topics in AP Calculus AB as well as the following topics: vector functions, parametric equations, and polar coordinates; rigorous definitions of finite and nonexistent limits; derivatives of vector functions and parametrically defined functions; advanced techniques of integration and advanced applications of the definite integral; and sequences and series.

02126A000 Particular Topics in Calculus
These courses examine specific topics in calculus (such as integral calculus, special functions or series, or the applications of calculus to mathematical modeling), rather than provide a general overview of calculus.
02131A000    IB Mathematical Studies

IB Mathematical Studies courses prepare students to take the International Baccalaureate Mathematical Studies exam at the Subsidiary or Higher level. Intended to provide students with the skills to cope with the mathematical demands of a technological society, course topics include linear, quadratic, and exponential functions, solutions, and graphs; skills in computation, estimation, and development of algorithms; data analysis, including collection, calculation, and presentation of statistics; set operations and logic; business techniques, including progressions and linear programming; and geometry and trigonometry.
IB Mathematics courses prepare students to take the International Baccalaureate Mathematics exams at the Subsidiary or Higher level. Topics include operations and properties of number sets; trigonometric functions, equations, and graphs; algebra and coordinate geometry; simultaneous linear equations; polynomial and quadratic functions and equations; calculus, including bilinear, exponential and logarithmic functions; two dimensional vectors and matrices; and probability.

IB Mathematics and Computing—SL courses prepare students to take the International Baccalaureate Mathematics and Computing exam at the Subsidiary level. Designed to give students a working knowledge of a high level programming language and sound mathematical training, course topics include operations and properties of number sets; trigonometric functions, equations, and graphs; algebra and coordinate geometry, including simultaneous linear equations, binomial theorem, and polynomial and quadratic functions and equations; calculus; vectors and matrices; and numerical analysis. The courses also contain components on computer problem solving and programming; topics regarding computer hardware, software, modes of operation, and data types and structures.

IB Further Mathematics—SL courses prepare students to take the International Baccalaureate Further Mathematics at the Subsidiary level. Designed to advance students knowledge of IB mathematics—HL, course topics include geometry; statistics and probability; sets, relations and groups; series and differential equations; and discrete mathematics.

Particular Topics in Analytic Mathematics courses examine particular topics in analytic mathematics (such as mathematical proofs and structures or numerical analysis), not otherwise described above.

Other Analytic Mathematics courses.

General Applied Math courses reinforce general math skills, extend these skills to include some pre-algebra and algebra topics, and use these skills in a variety of practical, consumer, business, and occupational applications. Course topics typically include rational numbers, measurement, basic statistics, ratio and proportion, basic geometry, formulas, and simple equations.

Occupationally Applied Math courses reinforce general math skills, extend these skills to include some pre-algebra and algebra topics, and use these skills primarily in occupational applications. Course topics typically include rational numbers, measurement, basic statistics, ratio and proportion, basic geometry, formulas, and simple equations.

Technical Math courses extend students' proficiency in mathematics, and often apply these skills to technical and/or industrial situations and problems. Technical Math topics may include but are not limited to rational numbers, systems of measurements, tolerances, numerical languages, geometry, algebra, statistics, and using tables, graphs, charts, and other data displays. Technology is integrated as appropriate.

Business Math courses reinforce general math skills, emphasize speed and accuracy in computations, and use these
skills in a variety of business applications. Business Math courses reinforce general math topics (e.g., arithmetic, measurement, statistics, ratio and proportion, exponents, formulas, and simple equations) by applying these skills to business problems and situations; applications might include wages, hourly rates, payroll deductions, sales, receipts, accounts payable and receivable, financial reports, discounts, and interest.

**02155A000 Business Math with Algebra**
Business Math with Algebra courses teach and have students apply algebra concepts to a variety of business and financial situations. Applications usually include income, insurance, credit, banking, taxation, stocks and bonds, and finance.

**02156A000 Computer Math with Algebra**
Intended for students who have attained the objectives of Algebra I, Computer Math—Algebra I level courses include a study of computer systems and programming, and use the computer to solve math problems.
02157A000  Consumer Math
Consumer Math courses reinforce general math topics (such as arithmetic using rational numbers, measurement, ratio and proportion, and basic statistics) and apply these skills to consumer problems and situations. Applications typically include budgeting, taxation, credit, banking services, insurance, buying and selling products and services, home and/or car ownership and rental, managing personal income, and investment.

02201A000  Probability and Statistics
Probability and Statistics courses introduce the study of likely events and the analysis, interpretation, and presentation of quantitative data. Course topics generally include basic probability and statistics: discrete probability theory, odds and probabilities, probability trees, populations and samples, frequency tables, measures of central tendency, and presentation of data (including graphs). Course topics may also include normal distribution and measures of variability.

02202A000  Inferential Probability and Statistics
Probability and Statistics courses focus on descriptive statistics, with an introduction to inferential statistics. Topics typically include event probability, normal probability distribution, collection and description of data, frequency tables and graphs, measures of central tendency and variability, random variables, and random sampling. Course topics may also include covariance and correlation, central limit theorem, confidence intervals, and hypothesis testing.

02203A000  AP Statistics
Following the College Board's suggested curriculum designed to parallel college-level statistics courses, AP Statistics courses introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference.

02204A000  Particular Topics in Probability and Statistics
These courses examine particular topics in Probability and Statistics, such as regression or hierarchical linear modeling, rather than provide a general overview.

02207A000  Probability and Statistics—Independent Study
Probability and Statistics—Independent Study courses, often conducted with instructors as mentors, enable students to explore mathematics topics of interest. These courses may be offered in conjunction with other rigorous math courses, or may serve as an opportunity to explore a topic of special interest. They may also serve as an opportunity to study for AP exams if the school does not offer specific courses for that endeavor.

02209A000  Probability and Statistics—Other
Other Probability and Statistics courses.

02301A000  High School Math 1
Math 1 involves the study of linear and exponential functions (with domains in the integers), including application and interpretation of statistics and real-world situations. Students reason about functions and the number and nature of solutions to equations, systems of equations, inequalities and systems of inequalities. Students define congruence using transformational geometry. Students apply transformations to linear, exponential, piece-wise, absolute value, square root and cube root functions. They explore these function types represented algebraically, graphically, numerically in tables, and by verbal descriptions.

02302A000  High School Math 2
Math 2 involves the study of quadratic and exponential functions represented algebraically, graphically, numerically in
tables and by verbal descriptions. Students write equivalent radical, rational and quadratic expressions to reveal information using properties of exponents, completing the square, and/or factoring. Students define similarity using transformational geometry and use this definition to prove geometric theorems. Students learn and apply trigonometric ratios, the Pythagorean Theorem and the relationship between sine and cosine to solve problems. Students recognize, calculate and use conditional probability and independence.

02303A000  High School Math 3 (9 Units)
Math 3 involves the study of polynomial, rational, logarithmic and trigonometric functions represented algebraically, graphically, numerically in tables and by verbal descriptions. Students write equivalent polynomial, rational, trigonometric and logarithmic expressions to reveal information and key features. Students make geometric constructions and apply geometric concepts and trigonometric ratios to describe, model and solve problems. Students distinguish among sample surveys, experiments and observational studies to determine and interpret data.

02991A000  History of Math
History of Math courses include a study of the historical development of numbers, computation, algebra, and geometry. Figures critical to the development of mathematics (e.g., Pythagoras, Pascal, Descartes) or important developments (e.g., pi, decimal fractions, probability theory, calculus) often form the backbone of these classes.

02993A000  Mathematics—Test Preparation
Mathematics—Test Preparation courses provide students with activities in analytical thinking and with the skills and strategies associated with standardized test taking (such as the PSAT, SAT, and ACT). Topics covered include strategies for arithmetic, algebra, geometry, and quantitative comparison problems as well as time management, scoring procedures and calculator usage.

02994A000  Mathematics Proficiency Development
Mathematics Proficiency Development courses are designed to assist students in acquiring the skills necessary to pass proficiency examinations.

02995A000  Mathematics—Aide
Mathematics—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course materials. Students may provide tutorial or instructional assistance to other students.

02997A000  Mathematics—Independent Study
Mathematics—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to mathematics. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

02998A000  Mathematics—Workplace Experience
Mathematics—Workplace Experience courses provide students with work experience in a field related to mathematics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

02999A000  Mathematics—Other
Other Mathematics courses.
03  Life and Physical Sciences

03001A000  Earth Science
Earth Science courses offer insight into the environment on earth and the earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

03002A000  Geology
Geology courses provide an in-depth study of the forces that formed and continue to affect the earth's surface. Earthquakes, volcanoes, and erosion are examples of topics that are presented.

03003A000  Environmental Science
Environmental Science courses examine the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, these courses usually cover the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

03004A000  Astronomy
Astronomy courses offer students the opportunity to study the solar system, stars, galaxies, and interstellar bodies. These courses usually introduce and use astronomic instruments and typically explore theories regarding the origin and evolution of the universe, space, and time.

03005A000  Marine Science
Courses in Marine Science focus on the content, features, and possibilities of the earth's oceans. They explore marine organisms, conditions, and ecology and sometimes cover marine mining, farming, and exploration.

03006A000  Meteorology
Meteorology courses examine the properties of the earth's atmosphere. Topics usually include atmospheric layering, changing pressures, winds, water vapor, air masses, fronts, temperature changes and weather forecasting.

03007A000  Physical Geography
Physical Geography courses equip students with an understanding of the constraints and possibilities that the physical environment places on human development. These courses include discussion of the physical landscape through geomorphology and topography, the patterns and processes of climate and weather, and natural resources.

03008A000  Earth and Space Science
Earth and Space Science courses introduce students to the study of the earth from a local and global perspective. In these courses, students typically learn about time zones, latitude and longitude, atmosphere, weather, climate, matter, and energy transfer. Advanced topics often include the study of the use of remote sensing, computer visualization, and computer modeling to enable earth scientists to understand earth as a complex and changing planet.

03047A000  Earth Science—Independent Study
Earth Science—Independent Study courses, often conducted with instructors as mentors, enable students to explore scientific topics of interest, using advanced methods of scientific inquiry and experimentation. These courses may be offered in conjunction with other rigorous science courses or may serve as an opportunity to explore a topic of special interest.
Earth Science—Workplace Experience

Earth Science—Workplace Experience courses provide work experience in a field related to earth science. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Earth Science—Other

Other Early Science courses.
Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.

Biology—Advanced Studies
Usually taken after a comprehensive initial study of biology, Biology—Advanced Studies courses cover biological systems in more detail. Topics that may be explored include cell organization, function, and reproduction; energy transformation; human anatomy and physiology; and the evolution and adaptation of organisms.

Anatomy and Physiology
Usually taken after a comprehensive initial study of biology, Anatomy and Physiology courses present the human body and biological systems in more detail. In order to understand the structure of the human body and its functions, students learn anatomical terminology, study cells and tissues, explore functional systems (skeletal, muscular, circulatory, respiratory, digestive, reproductive, nervous, and so on), and may dissect mammals.

Anatomy
Anatomy courses present an in-depth study of the human body and biological system. Students study such topics as anatomical terminology, cells, and tissues and typically explore functional systems such as skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems.

Physiology
Physiology courses examine all major systems, tissues, and muscle groups in the human body to help students understand how these systems interact and their role in maintaining homeostasis. These courses may also cover such topics as cell structure and function, metabolism, and the human life cycle.

Adhering to the curricula recommended by the College Board and designed to parallel college-level introductory biology courses, AP Biology courses stress basic facts and their synthesis into major biological concepts and themes. These courses cover three general areas: molecules and cells (including biological chemistry and energy transformation); genetics and evolution; and organisms and populations (i.e., taxonomy, plants, animals, and ecology). AP Biology courses include college-level laboratory experiments.

IB Biology courses prepare students to take the International Baccalaureate Biology exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Biology promotes understanding of the facts, principles, and concepts underlying the biological field; critical analysis, evaluation, and generation of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of biology and scientific advances in biology upon both society and issues of ethical, philosophical, and political importance. Course content varies, but includes study of living organisms from the cellular level through functioning entities within the biosphere. Laboratory experimentation is an essential component of these courses.

Botany
Botany courses provide students with an understanding of plants, their life cycles, and their evolutionary relationships.

Genetics
Genetics courses provide students with an understanding of general concepts concerning genes, heredity, and variation of organisms. Course topics typically include chromosomes, the structure of DNA and RNA molecules, and dominant and recessive inheritance and may also include lethal alleles, epistasis and hypostasis, and polygenic inheritance.

**03060A000 Microbiology**

Microbiology courses provide students with a general understanding of microbes, prokaryotic and euaryotic cells, and the three domain systems. Additional topics covered may include bacterial control, cell structure, fungi, protozoa, viruses and immunity, microbial genetics, and metabolism.
Zoology courses provide students with an understanding of animals, the niche they occupy in their environment or habitat, their life cycles, and their evolutionary relationships to other organisms. These courses should also help students develop an awareness and understanding of biotic communities.

Conceptual Biology
These courses provide students with a basic understanding of living things. Topics covered may include ecology and environmental problems such as overpopulation and pollution as well as cells, types of organisms, evolutionary behavior, and inheritance.

Particular Topics in Biology
Particular Topics in Biology courses concentrate on a particular subtopic within the field of biology (such as botany, zoology, genetics, and so on) that is not otherwise described within this classification system.

Biology—Independent Study
Biology—Independent Study courses, often conducted with instructors as mentors, enable students to explore scientific topics of interest, using advanced methods of scientific inquiry and experimentation. These courses may be offered in conjunction with other rigorous science courses or may serve as an opportunity for students to explore a topic of special interest.

Biology—Workplace Experience
Biology—Workplace Experience courses provide work experience in a field related to biology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other Biology courses.

Chemistry courses involve studying the composition, properties, and reactions of substances. These courses typically explore such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied.

Chemistry—Advanced Studies
Usually taken after a comprehensive initial study of chemistry, Chemistry—Advanced Studies courses cover chemical properties and interactions in more detail. Advanced chemistry topics include organic chemistry, thermodynamics, electrochemistry, macromolecules, kinetic theory, and nuclear chemistry.

Organic Chemistry
Organic Chemistry courses involve the study of organic molecules and functional groups. Topics covered may include nomenclature, bonding molecular structure and reactivity, reaction mechanisms, and current spectroscopic techniques.

Physical Chemistry
Usually taken after completing a calculus course, Physical Chemistry courses cover chemical kinetics, quantum mechanics, molecular structure, molecular spectroscopy, and statistical mechanics.
03105A000  Conceptual Chemistry
Conceptual Chemistry courses are practical, nonquantitative chemistry courses designed for students who desire an understanding of chemical concepts and applications.

03106A000  AP Chemistry
Following the curricula recommended by the College Board, AP Chemistry courses usually follow high school chemistry and second-year algebra. Topics covered may include atomic theory and structure; chemical bonding; nuclear chemistry; states of matter; and reactions (stoichiometry, equilibrium, kinetics, and thermodynamics). AP Chemistry laboratories are equivalent to those of typical college courses.
03107A000  **IB Chemistry**

IB Chemistry courses prepare students to take the International Baccalaureate Chemistry exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Chemistry promotes understanding of the facts, patterns, and principles underlying the field of chemistry; critical analysis, evaluation, prediction, and generation of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of chemistry and scientific advances in chemistry upon both society and issues of ethical, philosophical, and political importance. Course content varies, but includes the study of the materials of the environment, their properties, and their interaction. Laboratory experimentation is an essential part of these courses.

03108A000  **Particular Topics in Chemistry**

Particular Topics in Chemistry courses concentrate on a particular subtopic within the field of chemistry (such as chromatography and spectrometry) that is not otherwise described in this classification system.

03147A000  **Chemistry—Independent Study**

Chemistry—Independent Study courses, often conducted with instructors as mentors, enable students to explore scientific topics of interest, using advanced methods of scientific inquiry and experimentation. These courses may be offered in conjunction with other rigorous science courses or may serve as an opportunity to explore a topic of special interest.

03148A000  **Chemistry—Workplace Experience**

Chemistry—Workplace Experience courses provide work experience in a field related to chemistry. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

03149A000  **Chemistry—Other**

Other Chemistry courses.

03151A000  **Physics**

Physics courses involve the study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes examination of sound, light, and magnetic and electric phenomena.

03152A000  **Physics—Advanced Studies**

Usually taken after a comprehensive initial study of physics, Physics—Advanced Studies courses provide instruction in laws of conservation, thermodynamics, and kinetics; wave and particle phenomena; electromagnetic fields; and fluid dynamics.

03153A000  **Principles of Technology**

Principles of Technology courses focus on the study of the forces and laws of nature and their application to modern technology. Equilibrium, motion, momentum, energy conversion, electromagnetism, and optical phenomena are presented in the context of current, real-world applications. Demonstrations, math labs, and applied laboratory experiments are an integral part of the Principles of Technology curriculum. These courses enable students to gain a solid foundation for careers in electronics, robotics, telecommunications, and other technological fields.

03155A000  **AP Physics B**

AP Physics B courses are designed by the College Board to parallel college-level physics courses that provide a
systematic introduction to the main principles of physics and emphasize problem-solving without calculus. Course content includes mechanics, electricity and magnetism, modern physics, waves and optics, and kinetic theory and thermodynamics.

**03156A000 AP Physics C**

Designed by the College Board to parallel college-level physics courses that serve as a partial foundation for science or engineering majors, AP Physics C courses primarily focus on 1) mechanics and 2) electricity and magnetism, with approximately equal emphasis on these two areas. AP Physics C courses are more intensive and analytical than AP Physics B courses and require the use of calculus to solve the problems posed.
IB Physics courses prepare students to take the International Baccalaureate Physics exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Physics promotes understanding of the facts, patterns, and principles underlying the field of physics; critical analysis, prediction, and application of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of scientific advances in physics upon both society and issues of ethical, philosophical, and political importance. Course content varies, but includes the study of the fundamental laws of nature and the interaction between concepts of matter, fields, waves, and energy. Laboratory experimentation is essential; calculus may be used in some courses.

Physical Science courses involve study of the structures and states of matter. Typically (but not always) offered as introductory survey courses, they may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.

IB Physical Science courses prepare students to take the International Baccalaureate Physical Science exams at either the Subsidiary or Higher level. These courses integrate the study of physics and chemistry, showing how the physical and chemical properties of materials can be explained and predicted in terms of atomic, molecular, and crystal structures and forces. In keeping with the general aim of IB Experimental Sciences courses, IB Physical Science courses promote critical analysis, prediction, and application of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of science and scientific advances upon both society and issues of ethical, philosophical, and political importance. Students are required to develop and pursue an individual, experimental project, which is evaluated as part of the IB exam.

Conceptual Physics courses introduce students to the use of chemicals, characteristic properties of materials, and simple mechanics to better describe the world and nonliving matter. The courses emphasize precise measurements and descriptive analysis of experimental results. Topics covered may include energy and motion, electricity, magnetism, heat, the structure of matter, and how matter reacts to materials and forces.

Particular Topics in Physics courses concentrate on a particular subtopic within the field of physics (such as optics, thermodynamics, quantum physics, and so on) that is not otherwise described in this classification system.

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

Physics—Independent Study
Physics—Independent Study courses, often conducted with instructors as mentors, enable students to explore scientific topics of interest, using advanced methods of scientific inquiry and experimentation. These courses may be offered in conjunction with other rigorous science courses or may provide students with an opportunity to explore a topic of special interest.

03198A000 Physics—Workplace Experience
Physics—Workplace Experience courses provide work experience in a field related to physics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

03199A000 Physics—Other
Other Physics courses.

03201A000 Integrated Science
The specific content of Integrated Science courses varies, but they draw upon the principles of several scientific specialties—earth science, physical science, biology, chemistry, and physics—and organize the material around thematic units. Common themes covered include systems, models, energy, patterns, change, and constancy. These courses use appropriate aspects from each specialty to investigate applications of the theme.

03202A000 Unified Science
Unified Science courses combine more than one branch of science into a cohesive study or may integrate science with another discipline. General scientific concepts are explored, as are the principles underlying the scientific method and experimentation techniques.
03203A000  Applied Biology/Chemistry
Applied Biology/Chemistry courses integrate biology and chemistry into a unified domain of study and present the resulting body of knowledge in the context of work, home, society, and the environment, emphasizing field and laboratory activities. Topics include natural resources, water, air and other gases, nutrition, disease and wellness, plant growth and reproduction, life processes, microorganisms, synthetic materials, waste and waste management, and the community of life.

03204A000  Technological Inquiry
Technological Inquiry courses provide students with an understanding of the use of process skills as an integral part of scientific activity and technological development. Students learn how scientific phenomena are explained, measured, predicted, organized, and communicated.

03205A000  Origins of Science
Origins of Science courses explore the body of scientific knowledge and discoveries from an historical perspective, wherein students gain an understanding of how one discovery led to others or to entire revolutions of thought. In these courses, original experiments may be replicated, and students may study primary materials.

03206A000  IB Design Technology
IB Design Technology courses prepare students to take the International Baccalaureate Design Technology exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Design Technology courses promote understanding and use of the scientific method to solve problems using scientific information and production techniques. Practical/investigative work centers on the properties of materials, mechanisms, control circuits, and production techniques as they apply to constructing an artifact or developing skills and ideas useful in carrying out such a project.

03207A000  AP Environmental Science
AP Environmental Science courses are designed by the College Board to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems (both natural and human made), evaluate the relative risks associated with the problems, and examine alternative solutions for resolving and/or preventing them. Topics covered include science as a process, ecological processes and energy conversions, earth as an interconnected system, the impact of humans on natural systems, cultural and societal contexts of environmental problems, and the development of practices that will ensure sustainable systems.

03208A000  IB Environmental Science
IB Environmental Systems courses prepare students to take the International Baccalaureate Environmental Systems exam at the Standard level by providing them with the knowledge, methods, and techniques to understand the nature and functioning of natural systems, the relationships that affect environmental equilibrium, and human impact on the biosphere. Topics also include ecosystem integrity and sustainability, students’ own relationships to the environment, and the nature of internationalism in resolving major environmental issues.

03209A000  Aerospace
Aerospace courses explore the connection between meteorology, astronomy, and flight across and around the earth as well as into outer space. In addition to principles of meteorology (e.g., atmosphere, pressures, winds and jet streams) and astronomical concepts (e.g., solar system, stars, and interplanetary bodies), course topics typically include the history of aviation, principles of aeronautical decision-making, airplane systems, aerodynamics, and flight theory.

03210A000  Science, Technology and Society
Science, Technology, and Society courses encourage students to explore and understand the ways in which science and technology shape culture, values, and institutions and how such factors, in turn, shape science and technology. Topics covered may include how science and technology enter society and how they change as a result of social processes.

03211A000 Technical Science
Technical Science courses introduce students to scientific tools and methods and provide an introduction to chemistry and physics. Topics covered typically include measurement conversion, model creation, use of scientific methods, interpretation of atoms, identification of the properties of common compounds, analysis of chemical equations, the impact of force on linear motion, and the study of various physical phenomena and forms of energy.
Scientific Research and Design

In Scientific Research and Design courses, students conceive of, design, and complete a project using scientific inquiry and experimentation methodologies. Emphasis is typically placed on safety issues, research protocols, controlling or manipulating variables, data analysis, and a coherent display of the project and its outcome(s).

Life and Physical Sciences—Proficiency Development

Life and Physical Sciences—Proficiency Development courses are designed to assist students in acquiring the skills necessary to pass proficiency examinations related to the life sciences and physical sciences.

Life and Physical Sciences—Aide

Life and Physical Sciences—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students and may serve as laboratory assistants.

Life and Physical Sciences—Independent Study

Life and Physical Sciences—Independent Study courses, often conducted with instructors as mentors, enable students to explore scientific topics of interest, using advanced methods of scientific inquiry and experimentation. These courses may be offered in conjunction with other rigorous science courses or may serve as an opportunity to explore a topic of special interest.

Life and Physical Sciences—Workplace Experience

Life and Physical Sciences—Workplace Experience courses provide work experience in a field related to life and/or physical science. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Life and Physical Sciences—Other

Other Life and Physical Sciences courses.
04 Social Sciences and History

04001A000 World Geography
World Geography courses provide students with an overview of world geography, but may vary widely in the topics they cover. Topics typically include the physical environment; the political landscape; the relationship between people and the land; economic production and development; and the movement of people, goods, and ideas.

04002A000 Particular Topics in Geography
Particular Topics in Geography courses examine a particular topic in geography, such as physical or cultural geography, or the geography of a particular area or region, rather than provide an overview of the field.

04003A000 IB Geography
IB Geography courses prepare students to take the International Baccalaureate Geography exams at either the Subsidiary or Higher level, and individual courses vary to reflect the different emphases of the exams (either human or physical geology and case study or fieldwork instruction). In general, however, IB Geography courses aim to help students understand the relationships within society, the relationships between society and the natural environment, and how those relationships change over time.

04004A000 AP Human Geography
Following the College Board’s suggested curriculum designed to parallel college-level Human Geography courses, AP Human Geography introduces students to the systematic study of patterns and processes that have shaped the ways in which humans understand, use, and alter the earth’s surface. Students use spatial concepts and landscape analysis to examine human social organization and its environmental consequences and also learn about the methods and tools geographers use in their science and practice.

04047A000 Geography—Independent Study
Geography—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within geography. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.

04048A000 Geography—Workplace Experience
Geography—Workplace Experience courses provide work experience in a field related to geography. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04049A000 Geography—Other
Other Geography courses.

04051A000 World History—Overview
World History—Overview courses provide students with an overview of the history of human society from early civilization to the contemporary period, examining political, economic, social, religious, military, scientific, and cultural developments. World History—Overview courses may include geographical studies, but often these components are not as explicitly taught as geography.

04052A000 World History and Geography
In addition to covering the objectives of World History—Overview courses, World History and Geography courses provide an overview of world geography. These courses are often developed in response to increased national
concern regarding the importance of geography, and they explore geographical concepts.

04053A000  Modern World History

Modern World History courses provide an overview of the history of human society in the past few centuries—from the Renaissance period, or later, to the contemporary period—exploring political, economic, social, religious, military, scientific, and cultural developments.
IB History courses prepare students to take the International Baccalaureate History exams at either the Subsidiary or Higher level. In these courses, students study political, military, economic, social, and cultural trends and explore the nature of historical documentation and the methods used by historians. IB History courses survey 20th-century topics in an international context; provide a detailed regional study of a major area (Africa, Europe, the Americas, West and South Asia, East and Southeast Asia, or Australia); and enable students to undertake individual study on a subject of interest in greater detail and depth.

Modern European History courses examine the development of political, social, and economic movements in Europe over the past few centuries (from the Renaissance period, or later, to the contemporary period) and usually include such topics as the rise of the modern nation state, scientific and industrial revolutions, the age of exploration and nationalism, imperialism, and world war.

Following the College Board’s suggested curriculum designed to parallel college-level European History courses, AP European History courses examine European civilization from the High Renaissance period to the recent past and also expose students to the factual narrative. In addition, these courses help students develop an understanding of some of the principal themes in modern European history and the abilities to analyze historical evidence and to express that understanding and analysis in writing.

Following the College Board’s suggested curriculum designed to parallel college-level World History courses, AP World History courses examine world history from 8000 BCE to the present with the aim of helping students develop a greater understanding of the evolution of global processes and contracts and how different human societies have interacted. These courses highlight the nature of changes in an international context and explore their causes and continuity.

Ancient Civilizations courses provide a survey of the evolution of society from the ancient Middle East through Greek and Roman civilizations. Typically, in these courses, students study the rise and fall of civilizations and empires, with an emphasis on the legacies they provide to successive societies.

Medieval European History courses provide a survey of European civilization from the fall of Rome through the late Middle Ages.

Ancient and Medieval History courses combine a study of ancient civilizations and Medieval Europe, beginning with the civilizations of the ancient Middle East and continuing through the late Middle Ages in Europe.

World Area Studies courses examine the history, politics, economics, society, and/or culture of one or more regions of the world, such as Africa, Latin America, the former Soviet Union, Far East Asia, and the Middle East. These courses may focus primarily on the history of a particular region or may take an interdisciplinary approach to the contemporary issues affecting the region. Furthermore, these courses may emphasize one particular country (other than the United States), rather than emphasizing a region or continent.
World People Studies courses allow students to study various types of subgroups that have something in common such as religion, gender, or culture. Similar in style to World Area Studies, but focusing on a group of people rather than on a specific region, these courses examine a subgroup’s history, politics, economics, and/or culture.

Western Civilization courses apply an interdisciplinary approach to the study of western cultural traditions, frequently using a chronological framework. Course content typically includes a survey of the major developments in and contributors to art and architecture, literature, religion, and philosophy, and culture. These courses may also cover intellectual and political movements.

Contemporary World Issues courses enable students to study political, economic, and social issues facing the world. These courses may focus on current issues, examine selected issues throughout the 20th century, and look at historical causes or possible solutions.
These courses examine particular topics in world history other than those already described.

IB Islamic History courses prepare students to take the International Baccalaureate History exams at either the Subsidiary or Higher level. These courses are designed to provide students with the means to acquire a deep and open understanding of Islamic history and to grasp its contribution to the history of the world. Possible topics covered include political, social, economic, and intellectual aspects of Islamic history.

World History—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within world history. Independent Study courses may provide students with an opportunity to expand their expertise in a particular period or area, to explore a topic of special interest, or to develop more advanced skills.

World History—Workplace Experience courses provide work experience in a field related to world history. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other World History courses.

U.S. History—Comprehensive courses provide students with an overview of the history of the United States, examining time periods from discovery or colonialism through World War II or after. These courses typically include a historical overview of political, military, scientific, and social developments. Course content may include a history of the North American peoples before European settlement.

Early U.S. History courses examine the history of the United States from the colonial period to the Civil War or Reconstruction era (some courses end after this period). Some courses include American history before European settlement, while others may begin at the formation of the new nation. These courses typically include a historical overview of political, military, scientific, and social developments.

Modern U.S. History courses examine the history of the United States from the Civil War or Reconstruction era (some courses begin at a later period) through the present time. These courses typically include a historical review of political, military, scientific, and social developments.

Following the College Board’s suggested curriculum designed to parallel college-level U.S. History courses, AP U.S. History courses provide students with the analytical skills and factual knowledge necessary to address critically problems and materials in U.S. history. Students learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. The course examines the discovery and settlement of the New World through the recent past.

State-Specific Studies
State-Specific Studies courses examine the history, politics, economics, society, and/or cultures of one state in the United States. This course may focus primarily on the history of that state or may take an interdisciplinary approach to the contemporary issues affecting it.

04106A000  Contemporary U.S. Issues
Contemporary U.S. Issues courses study the political, economic, and social issues facing the United States, with or without an emphasis on state and local issues. These courses may focus on current issues or may examine selected issues that span throughout the 20th century to the present.

04107A000  U.S. Ethnic Studies
U.S. Ethnic courses examine the history, politics, economics, society, and/or culture of one or more of the racial/ethnic groups in the United States. These courses may focus primarily on the history of an individual racial/ethnic group or may take a more comprehensive approach to studying the contemporary issues affecting racial/ethnic groups overall.
04108A000  U.S. Gender Studies
U.S. Gender Studies courses examine the history, politics, economics, and/or culture of gender in U.S. society. These courses may focus primarily on gender relations or may take a more comprehensive approach to studying the contemporary issues related to gender.

04109A000  Particular Topics in U.S. History
These courses examine a particular topic in U.S. History, such as particular time periods in the history of the United States, or they may focus on the history of particular U.S. regions rather than provide an overview of the subject.

04147A000  U.S. History—Independent Study
U.S. History—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within U.S. History. Independent Study courses may provide students with an opportunity to expand their expertise in a particular period or area, to explore a topic in greater detail, or to develop more advanced skills.

04148A000  U.S. History—Workplace Experience
U.S. History—Workplace Experience courses provide work experience in a field related to U.S. history. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04149A000  U.S. History—Other
Other U.S. History courses.

04151A000  U.S. Government—Comprehensive
U.S. Government—Comprehensive courses provide an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. These courses may examine the structure and function of state and local governments and may cover certain economic and legal topics.

04152A000  Particular Topics in U.S. Government
These courses examine a particular topic pertaining to U.S. government and political institutions rather than provide a general overview of the subject. They may concentrate on one of many topics related to governmental structure, function, and purposes, such as the Constitution, the Supreme Court, Congress, or the Office of the President.

04153A000  Political Science
Political Science courses approach the study of politics from a theoretical perspective, including an examination of the role of government and the nature of political behavior, political power, and political action.

04154A000  Comparative Government
Comparative Government courses study the basic tenets of government, searching for the differences and similarities among several forms of government. These courses take a comparative approach to the study of government and politics, focusing on how the United States compares with other nations.

04155A000  International Relations
International Relations courses provide students with an introduction to the relationships that exist among nations, including an examination of the modern state; the foreign policies of nations; the dynamics of nationalism, ideology, and culture; and the role of international organizations. The courses may also emphasize contemporary events.
United States and World Affairs courses provide a study of global interrelationships. Topics covered may include geographic, political, economic, and social issues of a particular country or region, with an emphasis on how these issues influence (or are influenced by) the way in which the United States relates to other countries in an interdependent world context.
Following the College Board’s suggested curriculum designed to parallel college-level U.S. Government and Politics courses, these courses provide students with an analytical perspective on government and politics in the United States, involving both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. The courses generally cover the constitutional underpinnings of the U.S. government, political beliefs and behaviors, political parties and interest groups, the institutions and policy process of national government, and civil rights and liberties.

Following the College Board’s suggested curriculum designed to parallel college-level Comparative Government and Politics courses, these courses offer students an understanding of the world’s diverse political structures and practices. The courses encompass the study of both specific countries and general concepts used to interpret the key political relationships found in virtually all national policies. Course content generally includes sources of public authority and political power, the relationship between states and society, the relationships between the political and institutional frameworks of citizens and states, political change, and comparative methods.

AP Government courses prepare students for the AP exams in both U.S. Government and Politics and Comparative Government and Politics. Course content includes the topics covered in those two separate courses as described above.

Principles of Democracy courses combine a study of the structure of national, state, and local U.S. government with an overview of the principles of market economics. Course content may include contemporary U.S. issues. The purpose of these courses is to prepare students to perform effectively as informed citizens.

Civics courses examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. These courses do not typically delve into the same degree of detail on constitutional principles or the role of political parties and interest groups as do comprehensive courses in U.S. Government.

Law Studies courses examine the history and philosophy of law as part of U.S. society and include the study of the major substantive areas of both criminal and civil law, such as constitutional rights, torts, contracts, property, criminal law, family law, and equity. Although these courses emphasize the study of law, they may also cover the workings of the legal system.

Consumer Law courses present a history and philosophy of law and the legal system in the United States, with a particular emphasis on those topics affecting students as consumers and young adults (such as contractual laws, laws pertaining to housing and marriage, and constitutional rights).

Business Law courses present a history and philosophy of law and the legal system in the United States, with a particular emphasis on those topics affecting students as future business leaders and employees. Such topics may include contracts, commercial paper and debt instruments, property rights, employer/employee relationships, and constitutional rights and responsibilities.
04165A000  Legal System
Legal System courses examine the workings of the U.S. criminal and civil justice systems, including providing an understanding of civil and criminal law and the legal process, the structure and procedures of courts, and the role of various legal or judicial agencies. Although these courses emphasize the legal process, they may also cover the history and foundation of U.S. law (the Constitution, statutes, and precedents). Course content may also include contemporary problems in the criminal justice system.

04165A001  Legal System
Course
Legal System courses examine the workings of the U.S. criminal and civil justice systems, including providing an understanding of civil and criminal law and the legal process, the structure and procedures of courts, and the role of various legal or judicial agencies. Although these courses emphasize the legal process, they may also cover the history and foundation of U.S. law (the Constitution, statutes, and precedents). Course content may also include contemporary problems in the criminal justice system.

04166A000  Particular Topics in Law
These courses examine a particular topic in law such as the Constitution, specific statutes, or the legal process rather than provide an overview.

04197A000  Government, Politics and Law—Independent Study
Government, Politics, and Law—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within one of the fields of Government, Politics, and Law. These courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.

04198A000  Government, Politics and Law—Workplace Experience
Government, Politics, and Law—Workplace Experience courses provide students with work experience in a field related government, politics, and/or law. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04199A000  Government, Politics and Law—Other
Other Government, Politics and Law courses.

04201A000  Economics
Economics courses provide students with an overview of economics with primary emphasis on the principles of microeconomics and the U.S. economic system. These courses may also cover topics such as principles of macroeconomics, international economics, and comparative economics. Economic principles may be presented in formal theoretical contexts, applied contexts, or both.

04202A000  Comparative Economics
Comparative Economics courses offer students an opportunity to study different economies and economic systems, including an examination of various approaches to problems in micro- and macroeconomics.

04203A000  AP Microeconomics
Following the College Board’s suggested curriculum designed to parallel college-level microeconomics, AP Microeconomics courses provide students with a thorough understanding of the principles of economics that apply to
the functions of individual decisionmakers (both consumers and producers). They place primary emphasis on the
nature and functions of product markets, while also including a study of factor markets and the role of government in
the economy.

04204A000 AP Macroeconomics
Following the College Board’s suggested curriculum designed to parallel college-level macroeconomics, AP
Macroeconomics courses provide students with a thorough understanding of the principles of economics that apply to
an economic system as a whole. They place particular emphasis on the study of national income and price
determination and developing students’ familiarity with economic performance measures, economic growth, and
international economics.

04205A000 AP Economics
AP Economics courses prepare students for the College Board’s examinations in both Microeconomics and
Macroeconomics; these courses include the content of the two separate courses as described above.

04206A000 IB Economics
IB Economics courses prepare students to take the International Baccalaureate Economics exams at either the
Subsidiary or Higher level. The courses provide students with the basic tools of economic reasoning and teach them
to use those tools to explain or interpret economic problems. Course content includes resource allocation under
various systems, national income analysis, international economics, and economic development and growth and may
also cover income distribution.

04207A000 Particular Topics in Economics
These courses examine a particular topic in Economics rather than provide a general overview of the field. Course
topics may include international economics, economic development and growth of a particular country or region, or
resource allocation.

04247A000 Economics—Independent Study
Economics—Independent Study courses, often conducted with instructors as mentors, enable students to explore
topics of interest within the field of economics. Independent Study courses may provide students with an opportunity
to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more
advanced skills.
04248A000  Economics—Workplace Experience
Economics—Workplace Experience courses provide work experience in a field related to economics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04249A000  Economics—Other
Other Economics courses.

04251A000  Anthropology
Anthropology courses introduce students to the study of human evolution with regard to the origin, distribution, physical attributes, environment, and culture of human beings. These courses provide an overview of anthropology, including but not limited to both physical and cultural anthropology.

04252A000  Particular Topics in Anthropology
These courses examine a particular topic in anthropology, such as physical anthropology, cultural anthropology, or archeology, rather than provide a more comprehensive overview of the field.

04253A000  IB Social Anthropology
IB Social Anthropology courses prepare students to take the International Baccalaureate Social Anthropology exams at either the Subsidiary or Higher level. The courses aim to promote students’ awareness of underlying patterns and causes of social relationships and systems, preconceptions and assumptions within the social environment, and the use of ethnographic data in creating models, drawing inferences, and making comparisons.

04254A000  Psychology
Psychology courses introduce students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.

04255A000  Particular Topics in Psychology
These courses examine a particular topic in psychology, such as human growth and development or personality, rather than provide a more comprehensive overview of the field.

04256A000  AP Psychology
Following the College Board’s suggested curriculum designed to parallel a college-level psychology course, AP Psychology courses introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals, expose students to each major subfield within psychology, and enable students to examine the methods that psychologists use in their science and practice.

04257A000  IB Psychology
IB Psychology courses prepare students to take the International Baccalaureate Psychology exams at either the Subsidiary or Higher level. Course content includes developmental and social psychology, cognition and learning, and personality subject areas, which are approached from biological/physiological, behavioral, and humanistic points of view. These courses may include a study of research design and statistics and involve practical work in psychological research.

04258A000  Sociology
Sociology courses introduce students to the study of human behavior in society. These courses provide an overview
of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

04259A000  Particular Topics in Sociology
These courses examine a particular topic in sociology, such as culture and society or the individual in society, rather than provide an overview of the field of sociology.
04260A000 Social Science
Social Science courses provide students with an introduction to the various disciplines in the social sciences, including anthropology, economics, geography, history, political science, psychology, and sociology. Typically, these courses emphasize the methodologies of the social sciences and the differences among the various disciplines.

04261A000 Social Science Research
Social Science Research courses emphasize the methods of social science research, including statistics and experimental design.

04262A000 IB Organization Studies
IB Organization Studies courses prepare students to take the International Baccalaureate Organization Studies exams at either the Subsidiary or Higher levels. These IB courses provide a broad introduction to the principles and practices of enterprises engaged in producing, distributing, and exchanging goods and services in a variety of economic frameworks. A sample of topics explored within these courses include management styles and structures; decision-making methods; and methods for accounting, planning, and communication.

04297A000 Social Sciences—Independent Study
Social Sciences—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within one of the social science fields. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.

04298A000 Social Sciences—Workplace Experience
Social Sciences—Workplace Experience courses provide work experience in a field related to the social sciences. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04299A000 Social Sciences—Other
Other Social Studies courses.

04301A000 Humanities Survey
Humanities Survey courses provide an overview of major expressions of the cultural heritage of selected western and eastern civilizations. Content typically includes (but is not limited to) the examination of selected examples of art, music, literature, architecture, technology, philosophy, and religion of the cultures studied. These courses may also cover the languages and political institutions of these cultures.

04302A000 Humanities
Humanities courses examine and evoke student responses to human creative efforts and the world in particular historical periods and in particular cultures. Course content includes exploration, analysis, synthesis, and various responses to cultural traditions, including viewing, listening, speaking, reading, writing, performing, and creating. The courses may also examine relationships among painting, sculpture, architecture, and music.

04303A000 Issues of Western Humanities
Issues of Western Humanities courses introduce students to the study of the cultural heritage of human beings and provide an opportunity to explore our fundamental humanity. The content typically includes definitions of the humanities in relation to history, literature, religion, philosophy, art, music, and architecture and study of the cultures of Greece, Rome, and one or more settings in contemporary periods. Students are asked to analyze and clarify their
sense of themselves; examine and clarify their responsibilities in relation to those of others; examine philosophies concerning moral responsibility for the future; and examine philosophies about human mortality.

04304A000 IB Theory of Knowledge
Obligatory for every International Baccalaureate degree candidate, IB Theory of Knowledge courses aim to stimulate critical self-reflection of students’ knowledge and experiences. Course content generates questions regarding the bases of knowledge and their verification in the disciplines of mathematics, natural sciences, human sciences, and history, with an awareness of moral, political, and aesthetic judgments and biases. Students learn to appreciate the strengths and limitations of various kinds of knowledge; to relate studied subjects to one another, general knowledge, and living experiences; to formulate rational arguments; and to evaluate the role of language in knowledge and as a way to convey knowledge.
04305A000  Social Studies
Social Studies courses enable students to study a group of related subjects addressing the elements and structures of human society that may include economics, geography, history, citizenship, and other social studies-related disciplines.

04306A000  Philosophy
Philosophy courses introduce students to the discipline of philosophy as a way to analyze the principles underlying conduct, thought, knowledge, and the nature of the universe. Course content typically includes examination of the major philosophers and their writings.

04307A000  Particular Topics in Philosophy
These courses examine a particular topic in philosophy, such as aesthetic judgment, ethics, cosmology, or the philosophy of knowledge, rather than providing a more general overview of the subject.

04308A000  Modern Intellectual History
Modern Intellectual History courses provide a historical overview of modern intellectual movements, generally drawing from different disciplines such as political science, economics, and philosophy.

04309A000  IB Philosophy
IB Philosophy courses prepare students to take the International Baccalaureate Philosophy exams at either the Subsidiary or Higher levels. These courses challenge students to reflect upon and question the bases of knowledge and experience, to develop a personal mode of thought, to formulate rational arguments, and to use language to examine several conceptual themes in a thoughtful, philosophical manner.

04310A000  Particular Topics in Humanities
These courses cover particular topics in humanities such as the interrelationships among painting, sculpture, architecture, and music or the exploration of a particular time period rather than provide a general overview of the subject.

04347A000  Humanities—Independent Study
Humanities—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the field of humanities. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.

04348A000  Humanities—Workplace Experience
Humanities—Workplace Experience courses provide work experience in a field related to humanities. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04349A000  Humanities—Other
Other Humanities courses.

04994A000  Social Sciences and History—Proficiency Development
Social Sciences and History—Proficiency Development courses are designed to assist students in acquiring the skills necessary to pass proficiency examinations related to history and/or other social sciences.
04995A000  Social Sciences and History—Aide
Social Sciences and History—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

04997A000  Social Sciences and History—Independent Study
Social Sciences and History—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within one of the fields of social studies. These courses provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.
04998A000  Social Sciences and History—Workplace Experience
Social Sciences and History—Workplace Experience courses provide work experience in a field related to social sciences and/or history. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

04999A000  Social Sciences and History—Other
Other Social Sciences and History courses.
05  Fine and Performing Arts

05001A000  Dance Technique
Dance Technique courses provide students with experience in one or several dance forms (i.e., modern, jazz, ballet, and tap). Initial classes are usually introductory in nature, while the more advanced classes concentrate on improving students’ technique and may offer or require experience in choreography and dance evaluation.

05002A000  Dance Repertory
Dance Repertory courses provide the opportunity for students with prior dance experience to develop dance techniques in small groups; these classes require auditions and emphasize performance.

05003A000  Expressive Movement
Expressive Movement courses help develop students’ ability to move expressively, without an emphasis on particular dance forms or on developing specific dance techniques.

05004A000  Dance Appreciation
Dance Appreciation courses expand students’ knowledge of dance as an art form and help develop students’ ability to evaluate dance performances. Learning the history of one or several dance forms may also be included as a course objective.

05005A000  Choreography
Choreography courses teach students how to arrange and direct dancers’ movements. Course content includes application of the elements and principles of dance, study of historical and contemporary dance from a worldwide perspective, and instruction in critique. Course objectives include developing an appreciation of dance as a communicative art form and self-expression. Students sometimes gain performance experience.

05047A000  Dance—Independent Study
Dance—Independent Study courses, often conducted with instructors or professional dancers/choreographers as mentors, enable students to explore a particular dance form. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular form or style, to explore a topic in greater detail, or to develop more advanced skills.

05048A000  Dance—Workplace Experience
Dance—Workplace Experience courses provide students with work experience in a field related to dance. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

05049A000  Dance—Other
Other Dance courses.

05051A000  Introduction to the Theater
Introduction to the Theater courses provide an overview of the art, conventions, and history of the theater. Although the courses sometimes include experiential exercises, they emphasize learning about the theater rather than performance. Students learn about one or more of the following topics: basic techniques in acting, major developments in dramatic literature, major playwrights, the formation of theater as a cultural tradition, and critical appreciation of the art.
Theatre Arts

Theatre arts courses focus on the study and performance of drama including musical theatre. These courses review a wide range of scripted materials, such as plays, screen plays, teleplays, readers’ theatre scripts, dramatic criticism, creation of original dramatic works, and the role of dramatic arts in society. In addition, students will work collaboratively on performances.
05053A000 Drama—Comprehensive
Drama—Comprehensive courses are intended to help develop students’ experience and skill in one or more aspects of theatrical production. Initial courses are usually introductory in nature, providing an overview of the features of drama such as acting, set design, stage management, and so on. The more advanced courses concentrate on improving technique, expanding students’ exposure to different types of theatrical techniques and traditions, and increasing their chances of participating in public productions. These courses may also provide a discussion of career opportunities in the theater.

05054A000 Exploration in Drama
Exploration in Drama courses are designed to enhance students’ understanding of life through the study and performance of dramatic works. They emphasize developing students’ ability to express themselves and establish personal criteria for the critical evaluation of drama activities.

05055A000 Drama—Acting/Performance
Drama—Acting/Performance courses are intended to promote students’ experience and skill development in one or more aspects of theatrical production, but they concentrate on acting and performance skills. Initial courses are usually introductory in nature, while the more advanced courses focus on improving technique, expanding students’ exposure to different types of theatrical techniques and traditions, and increasing their chances of participating in public productions.

05056A000 Drama—Stagecraft
Drama—Stagecraft courses are intended to help students develop experience and skill in one or more aspects of theatrical production, but concentrate on stagecraft (such as lighting, costuming, set construction, makeup, stage management, and so on). Initial courses are usually introductory in nature, while more advanced courses concentrate on improving technique, expanding students’ exposure to different types of theatrical techniques and traditions and increasing their chances of participating in public productions. These courses may also provide a discussion of career opportunities in the theater.

05057A000 Directing
Directing courses are intended to improve students’ skills in translating a script into a final production and are usually taken after other drama courses. Directing courses enable each student to create an artistic vision and develop a personal aesthetic, by expanding the student’s exposure to different types of theatrical techniques and traditions and providing opportunities to direct the performances of others (either in scenes or in a full production).

05058A000 Playwriting
Playwriting courses are intended to improve students’ skills in creating a script suitable for live production and are usually taken after other drama courses. Playwriting courses enable students to develop a personal voice, style, and aesthetic by expanding their exposure to various playwrights and different types of theatrical techniques and traditions. Students are expected to write original scenes, one-act plays, or full productions.

05059A000 History and Literature of the Theater
History and Literature of the Theater courses explore in depth the structure, elements, and style of dramatic compositions, and, as an extension, how the dramatic literature influenced theatrical production and acting styles throughout history. Some courses may focus more on the literature component than on the theater (with increased emphasis on critique and analysis), but most courses connect these subjects, exploring their interrelationships. Major contributors (playwrights, directors, and so on) and the architecture of the theater may also be included as topics of study.

05097A000 Drama—Independent Study
Drama—Independent Study courses, often conducted with instructors or artists as mentors, enable students to explore a particular theatrical form. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular form or style, to explore a topic in greater detail, or to develop more advanced skills.

05098A000 Drama—Workplace Experience

Drama—Workplace Experience courses provide work experience in a field related to drama and the theater. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

05099A000 Drama—Other

Other Drama courses.
General Band courses develop students' technique for playing brass, woodwind, and percussion instruments and cover a variety of nonspecified band literature styles (concert, marching, orchestral, and modern styles).

Courses in Concert Band are designed to promote students' technique for playing brass, woodwind, and percussion instruments and cover a variety of band literature styles, primarily for concert performances.

Courses in Marching Band are intended to develop students' technique for playing brass, woodwind, and percussion instruments and cover appropriate band literature styles, primarily for marching performances.

Orchestra courses are designed to develop students' abilities to play brass, woodwind, percussion, and string instruments, covering a variety of string and orchestral literature styles.

Contemporary Band courses help students develop their techniques for playing brass, woodwind, percussion, and string instruments, as well as guitars and keyboards, focusing primarily on contemporary stage band literature styles, such as traditional jazz, jazz improvisation, and rock.

Instrumental Ensemble courses are intended to develop students' technique for playing brass, woodwind, percussion, and/or string instruments in small ensemble groups. Instrumental Ensemble courses cover one or more instrumental ensemble or band literature styles.

Piano courses introduce students to the fundamentals of music and basic keyboard techniques such as scales, chords, and melodic lines. These courses may also include more advanced keyboard techniques.

Guitar courses introduce students to the fundamentals of music and guitar-playing techniques, such as strumming and chords. These courses may also include more advanced guitar-playing techniques.

Individual Technique—Instrumental Music courses provide individuals with instruction in instrumental techniques. These courses may be conducted on either an individual or small group basis.

Chorus courses provide the opportunity to sing a variety of choral literature styles for men's and/or women's voices and are designed to develop vocal techniques and the ability to sing parts.

Vocal Ensemble courses are intended to develop vocal techniques and the ability to sing parts in small ensemble or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles.
05112A000  Individual Technique—Vocal Music
Individual Technique—Vocal Music courses provide instruction in and encourage the development of vocal techniques (including aural development) other than the ability to sing in groups. These courses may be conducted on either an individual or small group basis.

05113A000  Music Theory
Music Theory courses provide students with an understanding of the fundamentals of music and include one or more of the following topics: composition, arrangement, analysis, aural development, and sight reading.
05114A000  AP Music Theory
AP Music Theory courses are designed to be the equivalent of a first-year music theory college course as specified by the College Board. AP Music Theory develops students’ understanding of musical structure and compositional procedures. Usually intended for students who already possess performance-level skills, AP Music Theory courses extend and build upon students’ knowledge of intervals, scales, chords, metric/rhythmic patterns, and the ways they interact in a composition. Musical notation, analysis, composition, and aural skills are important components of the course.

05115A000  IB Music
IB Music courses prepare students to take the International Baccalaureate Music exam at either the Subsidiary or Higher level. IB Music courses develop students’ knowledge and understanding of music through training in musical skills (listening, performing, and composing); exposure to music theory; and formulation of an historic and global awareness of musical forms and styles. Historical, theoretical, and practical studies are suggested by the IB Curriculum Board.

05116A000  Music History/Appreciation
Music History/Appreciation courses survey different musical styles and periods with the intent of increasing students’ enjoyment of musical styles and/or developing their artistic or technical judgment. Music History/Appreciation courses may also focus on developing an understanding of a particular style or period.

05117A000  Music History
Similar in nature to Music History/Appreciation courses, Music History courses focus specifically on the history of music.

05118A000  Music Appreciation
Similar in nature to Music History/Appreciation courses, Music Appreciation courses focus specifically on students’ appreciation of music. They are designed to help students explore the world of music and to develop an understanding of the importance of music in their lives.

05119A000  Composition/Songwriting
Composition/Songwriting courses prepare students to express themselves thorough creating music. These courses may use conventional or nonconventional notation and may include harmonization in addition to melody writing. Along with musical instruments, students may also use computers for creating music.

05147A000  Music—Independent Study
Music—Independent Study courses, often conducted with instructors, professional musicians, or voice coaches as mentors, enable students to explore music-related topics. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular form or style, to explore a topic in greater detail, or to develop more advanced skills.

05148A000  Music—Workplace Experience
Music—Workplace Experience courses provide students with work experience in a field related to music. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

05149A000  Music—Other
Other Music courses.
05151A000  Art Appreciation
Art Appreciation courses introduce students to the many forms of art and help them form an aesthetic framework through which they can judge and critique art of various ages and cultures. These courses also explore the place and significance of art in our society.

05152A000  Art History
Art History courses introduce students to significant works of art, artists, and artistic movements that have shaped the art world and have influenced or reflected periods of history. These courses often emphasize the evolution of art forms, techniques, symbols, and themes.
AP Art—History of Art
Designed to parallel college-level Art History courses, AP Art—History of Art courses provide the opportunity for students to critically examine architecture, sculpture, painting, and other art forms within their historical and cultural contexts. In covering the art of several centuries (not necessarily in chronological order), students learn to identify different styles, techniques, and influences and to formulate and articulate their reactions to various kinds of artwork.

Creative Art—Comprehensive
Creative Art—Comprehensive courses provide students with the knowledge and opportunity to explore an art form and to create individual works of art. These courses may also provide a discussion and exploration of career opportunities in the art world. Initial courses cover the language, materials, and processes of a particular art form and the design elements and principles supporting a work of art. As students advance and become more adept, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic styles. Although Creative Art courses focus on creation, they may also include the study of major artists, art movements, and styles.

Creative Art—Drawing/Painting
Creative Art—Drawing/Painting courses cover the same topics as Creative Art—Comprehensive courses, but focus on drawing and painting. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen-and-ink, pencil, chalk, watercolor, tempera, oils, acrylics, and so on), but some courses may focus on only one medium.

Creative Art—Drawing
Creative Art—Drawing courses cover the same topics as Creative Art—Drawing/Painting, but focus on drawing. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen-and-ink, pencil, chalk, and so on), but some courses may focus on only one medium.

Creative Art—Painting
Creative Art—Painting courses cover the same topics as Creative Art—Drawing/Painting, but focus on painting. In keeping with this attention on two-dimensional work, students typically work with several media (such as watercolor, tempera, oils, acrylics, and so on), but some courses may focus on only one medium.

Creative Art—Sculpture
Creative Art—Sculpture courses cover the same topics as Creative Art—Comprehensive courses, but focus on creating three-dimensional works. Students typically work with several media (such as clay, ceramics, wood, metals, textiles, and so on), but some courses may focus on only one medium.

Ceramics/Pottery
Ceramics/Pottery courses cover the same topics as Creative Art—Comprehensive courses, but focus on creating three-dimensional works out of clay and ceramic material. Particular attention is paid to the characteristics of the raw materials, their transformation under heat, and the various methods used to create and finish objects.

Printmaking/Graphics
Printmaking/Graphics courses cover the same topics as Creative Art—Comprehensive courses, but focus on design principles, printmaking, and graphic design.

Printmaking
Printmaking courses introduce students to a variety of printmaking techniques using processes such as relief printing (monoprint, collograph block); intaglio (etching and engraving); and perigraph (silkscreen films, stencils, block-out). These courses emphasize design elements and principles and introduce art criticism as applied to fine art prints. Lessons may also include the historical development of printmaking in Western and non-Western cultures.

05162A000 Graphic Design

Graphic Design courses emphasize design elements and principles in the purposeful arrangement of images and text to communicate a message. They focus on creating art products such as advertisements, product designs, and identity symbols. Graphic Design courses may investigate the computer’s influence on and role in creating contemporary designs and provide a cultural and historical study of master design works of different periods and styles.
05163A000  Advertising Design
Advertising Design courses relate and apply creative expression and design principles to the field of advertising and commercial art. The courses offer practical experiences in generating original ideas, executing layouts, and preparing artwork for reproduction. Advertising Design courses may also provide a historical and contemporary view of art as students learn to critique work.

05164A000  Textiles
Textiles courses teach the same lessons as Creative Art—Comprehensive courses, but do so with a focus on textiles. These courses may survey a wide range of crafts and art forms using textiles, or they may focus on only one type of art form; possibilities include weaving, macramé, quilting, batik, stitchery, and so on.

05165A000  Crafts
Crafts courses teach the same lessons as Creative Art—Comprehensive courses, but do so with a focus on crafts. These courses may survey a wide range of crafts, or they may focus on only one type of craft; possibilities include calligraphy, quilting, silk-screening, cake-decorating, tole-painting, mask-making, knitting, crocheting, paper-making, and so on.

05166A000  Jewelry
Jewelry courses apply art and design principles to the creation of jewelry. Typically, students explore using various media, such as ceramic, papier-mache, glass, plastic, copper-enameled, brass, and silver. Course topics include exposure to jewelry of diverse world cultures and the history of jewelry design. Some Jewelry courses may concentrate on metalwork processes such as brazing, soldering, casting, welding, riveting, and finishing as they relate to the creation of jewelry.

05167A000  Photography
Photography courses expose students to the materials, processes, and artistic techniques of taking artistic photographs. Students learn about the operation of a camera, composition, lighting techniques, depth of field, filters, camera angles, and film development. The course may cover black-and-white photography, color photography, or both. As students advance, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic style. These courses may also cover major photographers, art movements, and styles.

05168A000  Film/Videotape
Film/Videotape courses expose students to the materials, processes, and artistic techniques involved in film, television, or videotape. Students learn about the operation of a camera, lighting techniques, camera angles, depth of field, composition, storyboarding, sound capture, and editing techniques. Course topics may also include production values and various styles of filmmaking (documentary, storytelling, news magazines, animation, and so on). As students advance, the instruction becomes more refined, and students are encouraged to develop their own artistic style. Students may also study major filmmakers, cinematographers, and their films and learn about film, television, and video and their relationships to drama and theater.

05169A000  Computer-Assisted Art
Computer-Assisted Art courses enable students to discover and explore how the computer can be used to create or to assist in producing various forms of artwork. Computer-Assisted Art courses provide the opportunity to become more adept in both the art form and in the use of the computer.

05170A000  Art Portfolio
Art Portfolio courses offer students the opportunity to create a professional body of work that reflects their personal style and talent. Students are often encouraged to display their work publicly.
AP Studio Art—General Portfolio

Designed for students with a serious interest in art, AP Studio Art—General Portfolio courses enable students to refine their skills and create artistic works to be submitted to the College Board for evaluation. Given the nature of the AP evaluation, the courses typically emphasize quality of work, attention to and exploration of a particular visual interest or problem, and breadth of experience in the formal, technical, and expressive aspects of the student’s art. AP Studio Art—General Portfolio evaluations require submission of artwork exemplifying talent in drawing, color organization, design, and sculpture.
AP Studio Art—Drawing Portfolio

Designed for students with a serious interest in art, AP Studio Art—Drawing Portfolio courses enable students to refine their skill and create artistic works to be submitted to the College Board for evaluation. Given the nature of the AP evaluation, the courses typically emphasize quality of work, attention to and exploration of a particular visual interest or problem, and breadth of experience in the formal, technical, and expressive aspects of drawing. In these courses, students explore representation, abstraction, and experimentation with a variety of drawing materials.

AP Studio Art: 2-D Design

Designed for students with a serious interest in art, AP Studio Art: 2-D Design courses enable students to refine their skills and create artistic works to be submitted to the College Board for evaluation. Given the nature of the AP evaluation, the courses typically emphasize quality of work, attention to and exploration of a particular visual interest or problem, and breadth of experience in the formal, technical, and expressive aspects of the student’s art. AP Studio Art: 2-D Design Portfolio deals with two-dimensional applications such as graphic design, photography, weaving, and collage. As a contrary to AP Studio Art Drawing, focus is applied on the design itself instead of the composition of the artwork.

AP Studio Art: 3-D Design

Designed for students with a serious interest in art, AP Studio Art: 3-D Design courses enable students to refine their skills and create artistic works to be submitted to the College Board for evaluation. Given the nature of the AP evaluation, the courses typically emphasize quality of work, attention to and exploration of a particular visual interest or problem, and breadth of experience in the formal, technical, and expressive aspects of the student’s art. AP Studio Art: 2-D Design Portfolio is a three-dimensional Advanced Placement Studio Art course that holds many similarities to the AP Studio Art 2D course. The course deals with three-dimensional artistic applications such as metalworking, sculpture, model, and ceramics. Like AP Studio Art 2D, the focus on the design of the artwork itself as opposed to its composition.

IB Art/Design

IB Art/Design courses prepare students to take the International Baccalaureate Art/Design exams at either the Subsidiary or Higher level. IB Art/Design courses help develop students’ aesthetic and creative faculties, offer training in awareness and criticism of art, and enable students to create quality works of art of their own. Students perform both studio and research work; the research component is designed to investigate particular topics or concepts of interest in further detail.

Visual Arts—Independent Study

Visual Art—Independent Study courses, often conducted with instructors or professional artists as mentors, enable students to explore a particular art form or topic. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular form or style, to explore a topic in greater detail, or to develop more advanced skills.

Visual Arts—Workplace Experience

Visual Arts—Workplace Experience courses provide students with work experience in a field related to visual arts. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Visual Arts—Other

Other Visual Arts courses.

Integrated Fine Arts
Integrated Fine Arts courses explore self-expression across the fine arts: any subset or all of the visual arts, music, drama, theater, and literature may be included in the curriculum for these courses. Students both study and critique the works of others and participate in or produce art themselves. These courses often include comparative study of various art forms over time (i.e., the interrelationship of literature, music, and the performing arts of a particular time period and culture).

05995A000 Fine and Performing Art—Aide
Fine and Performing Arts—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

05997A000 Fine and Performing Art—Independent Study
Fine and Performing Art—Independent Study courses, often conducted with instructors or professional artists as mentors, enable students to explore a particular art form. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular form or style, to explore a topic of in greater detail, or to develop more advanced skills.

05998A000 Fine and Performing Art—Workplace Experience
Fine and Performing Art—Workplace Experience courses provide students with work experience in a field related to the fine and performing arts. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

05999A000 Fine and Performing Art—Other
Other Fine and Performing Art courses.
Foreign Language and Literature

06101A000  Spanish I
Designed to introduce students to Spanish language and culture, Spanish I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.

06102A000  Spanish II
Spanish II courses build upon skills developed in Spanish I, extending students’ ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s).

06103A000  Spanish III
Spanish III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06104A000  Spanish IV
Spanish IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Spanish language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06105A000  Spanish V
Spanish V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06106A000  Spanish for Native Speakers
Spanish for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Spanish for Native Speakers courses often move faster than do regular Spanish foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

06107A000  Spanish Field Experience
Spanish Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Spanish is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06108A000  Spanish Conversation and Culture
Spanish Conversation and Culture courses provide students with an introduction to the Spanish language and the culture(s) of Spanish-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.
06109A000  Spanish Literature
Spanish Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Spanish.

06110A000  IB Language A (non-English)—Spanish
IB Language A (non-English)—Spanish courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.
IB Language B—Spanish
IB Language B—Spanish courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

AP Spanish Language
Designed by the College Board to parallel third-year college-level courses in Spanish Composition and Conversation, AP Spanish Language courses build upon prior knowledge and develop students’ ability to understand others and express themselves (in Spanish) accurately, coherently, and fluently in both formal and informal situations. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

AP Spanish Literature
Designed by the College Board to parallel college-level Introduction to Hispanic Literature courses, AP Spanish Literature courses cover representative works from the literatures of Spain and Spanish America, encompassing all genres. The courses build students’ Spanish language proficiency so that they are able to read and understand moderately difficult prose and express critical opinions and literary analyses in oral and written Spanish (an ability equivalent to having completed a third-year college-level Spanish Language course).

French I
Designed to introduce students to French language and culture, French I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. French culture is introduced through the art, literature, customs, and history of the French-speaking people.

French II
French II courses build upon skills developed in French I, extending students’ ability to understand and express themselves in French and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of French-speaking people to deepen their understanding of the culture(s).

French III
French III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

French IV
French IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the French language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

French V
French V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all
normal verb tenses (present, past, and future).

**06126A000  French for Native Speakers**
French for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), French for Native Speakers courses often move faster than do regular French foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

**06127A000  French Field Experience**
French Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where French is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.
French Conversation and Culture courses provide students with an introduction to the French language and the culture(s) of French-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

French Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in French.

IB Language A (non-English)—French courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.

IB Language B—French courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

AP French Language courses build upon prior knowledge and develop students' ability to understand others and express themselves (in French) accurately, coherently, and fluently. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

AP French Literature courses cover representative works of French literature and build students' French language proficiency so that they are able to read and understand moderately difficult prose and express critical opinions and analyses in correct oral and written French. The study of literary components (such as character, theme, structure, imagery, style, tone, and so on) is an important focus of AP French Literature.

Designed to introduce students to Italian language and culture, Italian I emphasizes basic grammar and syntax, simple vocabulary and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Italian culture is introduced through the art, literature, customs, and history of the Italian-speaking people.

Italian II courses build upon skills developed in Italian I, extending students' ability to understand and express themselves in Italian and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Italian-speaking people to deepen their understanding of the culture(s).
Italian III
Italian III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Italian IV
Italian IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Italian language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.
06145A000 Italian V
Italian V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06146A000 Italian for Native Speakers
Italian for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Italian for Native Speakers courses often move faster than do regular Italian foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06147A000 Italian Field Experience
Italian Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Italian is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06148A000 Italian Conversation and Culture
Italian Conversation and Culture courses provide students with an introduction to the Italian language and the culture(s) of Italian-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06149A000 Italian Literature
Italian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Italian.

06150A000 IB Language A (non-English)—Italian
IB Language A (non-English)—Italian courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06151A000 IB Language B—Italian
IB Language B—Italian courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06152A000 AP Italian Language
Designed by the College Board to parallel third-year college-level courses in Italian Composition and Conversation, AP Italian Language courses build upon prior knowledge and develop students’ ability to understand others and express themselves (in Italian) accurately, coherently, and fluently in both formal and informal situations. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.
06161A000  Portuguese I
Designed to introduce students to Portuguese language and culture, Portuguese I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Portuguese culture is introduced through the art, literature, customs, and history of the Portuguese-speaking people.

06162A000  Portuguese II
Portuguese II courses build upon skills developed in Portuguese I, extending students’ ability to understand and express themselves in Portuguese and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Portuguese speaking people to deepen their understanding of the culture(s).

06163A000  Portuguese III
Portuguese III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.
Portuguese IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Portuguese language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Portuguese V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Portuguese for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Portuguese for Native Speakers courses often move faster than do regular Portuguese foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

Portuguese Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Portuguese is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Portuguese Conversation and Culture courses provide students with an introduction to the Portuguese language and the culture(s) of Portuguese-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Portuguese Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Portuguese.

IB Language A (non-English)—Portuguese courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Portuguese courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Romance/Italic Language I
Designed to introduce students to a Romance/Italic language not otherwise described (e.g., Catalan, Sardinian, or Haitian Creole) and culture, Romance/Italic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

06182A000  Romance/Italic Language II

Romance/Italic Language II courses build upon skills developed in Romance/Italic Language I, extending students’ ability to understand and express themselves in a Romance/Italic language not otherwise described (e.g., Catalan, Sardinian, or Haitian Creole) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).
06183A000  Romance/Italic Language III
Romance/Italic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06184A000  Romance/Italic Language IV
Romance/Italic Language IV courses focus on advancing students' skills and abilities to read, write, speak, and understand the Romance/Italic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06185A000  Romance/Italic Language V
Romance/Italic Language V courses extend students' facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06186A000  Romance/Italic Language for Native Speakers
Romance/Italic Language for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue not otherwise described (e.g., Catalan, Sardinian, or Haitian Creole). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Romance/Italic Language for Native Speakers courses often move faster than do regular Romance/Italic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

06187A000  Romance/Italic Language Field Experience
Romance/Italic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Romance/Italic language (e.g., Catalan, Sardinian, or Haitian Creole) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06188A000  Romance/Italic Language Conversation and Culture
Romance/Italic Language Conversation and Culture courses provide students with an introduction to a Romance/Italic language not otherwise described (e.g., Catalan, Sardinian, or Haitian Creole) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06189A000  Romance/Italic Literature
Romance/Italic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Romance/Italic language not otherwise described (e.g., Catalan, Sardinian, or Haitian Creole).

06190A000  IB Language A (non-English)—Romance/Italic Language
IB Language A (non-English)—Romance/Italic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.
IB Language B—Romance/Italic Language

IB Language B—Romance/Italic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Romance/Italic Language—Other

Other Romance/Italic Language courses.
06201A000 German I
Designed to introduce students to German language and culture, German I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. German culture is introduced through the art, literature, customs, and history of the German-speaking people.

06202A000 German II
German II courses build upon skills developed in German I, extending students’ ability to understand and express themselves in German and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of German-speaking people to deepen their understanding of the culture(s).

06203A000 German III
German III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06204A000 German IV
German IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the German language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06205A000 German V
German V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06206A000 German for Native Speakers
German for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), German for Native Speakers courses often move faster than do regular German foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06207A000 German Field Experience
German Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where German is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06208A000 German Conversation and Culture
German Conversation and Culture courses provide students with an introduction to the German language and the culture(s) of German-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.
06209A000  German Literature

German Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in German.

06210A000  IB Language A (non-English)—German

IB Language A (non-English)—German courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.
IB Language B—German courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

AP German Language courses build upon prior knowledge and develop students’ ability to understand spoken German in various conversational situations, to express themselves (in German) accurately and fluently, and to have a command of the structure of the German language. Students will develop a vocabulary large enough to understand literature, magazine/newspaper articles, films and television productions, and so on.

Germanic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

Germanic Language II courses build upon skills developed in Germanic Language I, extending students’ ability to understand and express themselves in a Germanic language not otherwise described (e.g., Dutch or Flemish) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Germanic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Germanic Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Germanic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Germanic Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Germanic Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue not otherwise described (e.g., Dutch or Flemish). Because students understand at least the rudiments and
structure of the language and have a working vocabulary (to a greater or lesser degree), Germanic Language for Native Speakers courses often move faster than do regular Germanic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

06247A000 Germanic Language Field Experience
Germanic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Germanic language (e.g., Dutch or Flemish) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06248A000 Germanic Language Conversation and Culture
Germanic Language Conversation and Culture courses provide students with an introduction to a Germanic language not otherwise described (e.g., Dutch or Flemish) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.
Germanic Literature

Germanic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Germanic language not otherwise described (e.g., Dutch or Flemish).

IB Language A (non-English)—Germanic Language

IB Language A (non-English)—Germanic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Germanic Language

IB Language B—Germanic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Germanic Language—Other

Other Germanic Language courses.

Celtic Language I

Designed to introduce students to a Celtic language (e.g., Gaelic or Welsh) and culture, Celtic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Celtic culture is introduced through the art, literature, customs, and history of Celtic people.

Celtic Language II

Celtic Language II courses build upon skills developed in Celtic Language I, extending students’ ability to understand and express themselves in a Celtic language (e.g., Gaelic or Welsh) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Celtic people to deepen their understanding of the culture(s).

Celtic Language III

Celtic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Celtic Language IV

Celtic Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Celtic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.
**06265A000   Celtic Language V**
Celtic Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

**06266A000   Celtic Language for Native Speakers**
Celtic Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Celtic Language for Native Speakers courses often move faster than do regular Celtic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.
06267A000  Celtic Language Field Experience
Celtic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Celtic language (e.g., Gaelic or Welsh) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06268A000  Celtic Language Conversation and Culture
Celtic Language Conversation and Culture courses provide students with an introduction to a Celtic language (e.g., Gaelic or Welsh) and the culture(s) of Celtic people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06269A000  Celtic Literature
Celtic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Celtic language (e.g., Gaelic or Welsh).

06270A000  IB Language A (non-English)—Celtic Language
IB Language A (non-English)—Celtic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students’ native tongue.

06271A000  IB Language B—Celtic Language
IB Language B—Celtic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06279A000  Celtic Language—Other
Other Celtic Language courses.

06281A000  Greek I
Designed to introduce students to Greek language and culture, Greek I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Greek culture is introduced through the art, literature, customs, and history of the Greek-speaking people.

06282A000  Greek II
Greek II courses build upon skills developed in Greek I, extending students' ability to understand and express themselves in Greek and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Greek-speaking people to deepen their understanding of the culture(s).

06283A000  Greek III
Greek III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster
understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

**06284A000 Greek IV**
Greek IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Greek language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

**06285A000 Greek V**
Greek V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).
Greek for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Greek for Native Speakers courses often move faster than do regular Greek foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

Greek Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Greek is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Greek Conversation and Culture courses provide students with an introduction to the Greek language and the culture(s) of Greek-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Greek Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Greek.

IB Language A (non-English)—Greek courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Greek courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Greek—Other courses.

Latin I courses expose students to the Latin language and culture, emphasizing basic grammar and syntax, simple vocabulary, and the influence of Latin on current English words. Students will be able to read and write in Latin on a basic level.

Latin II courses enable students to expand upon what they have learned in Latin I, increasing their skills and depth of knowledge through the practice of structures, forms, and vocabulary. Reading materials reflect Roman life and culture.
06303A000  Latin III
Latin III courses build students’ knowledge of the Latin language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Latin texts.

06304A000  Latin IV
Latin IV courses build students’ knowledge of the Latin language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Latin texts.

06305A000  Latin V
Latin V courses build students’ knowledge of the Latin language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Latin texts.
IB Classical Languages—Latin
IB Classical Languages—Latin courses seek to strike a balance between the study of the classic Latin language itself (structure, meaning, and formulation) and the civilization it reflects (particularly its culture, philosophies, and institutions). Course content enables students to understand, translate, and appreciate a classical Latin text; relate literature to its historical or social background; recognize current relevance of ancient literature; and apply acquired knowledge to other subjects.

AP Latin (Virgil, Catullus and Horace)
Designed to parallel advanced college-level courses in Latin studies, AP Latin courses build upon and increase knowledge of Latin, enabling students to read the language with comprehension, to accurately translate Latin into English, and to appreciate the stylistic literary techniques used by the authors. AP Latin courses also include study of the political, social, and cultural background of the literary works and their authors, as well as their influence on later literature.

Classical Greek I
Classical Greek I courses expose students to classic Greek language and culture, emphasizing basic grammar, syntax, and simple vocabulary. Students will be able to read and write in Latin on a basic level.

Classical Greek II
Classical Greek II courses enable students to expand upon what they have learned in Classical Greek I, increasing their skills and depth of knowledge through the practice of structures, forms, and vocabulary. Reading materials reflect Greek life and culture.

Classical Greek III
Classical Greek III courses build students' knowledge of the classic Greek language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Greek texts.

Classical Greek IV
Classical Greek IV courses build students' knowledge of the classic Greek language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Greek texts.

Classical Greek V
Classical Greek V courses build students' knowledge of the classic Greek language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Greek texts.

IB Classical Languages—Greek
IB Classical Languages—Greek courses seek to strike a balance between the study of the classic Greek language itself (structure, meaning, and formulation) and the civilization it reflects (particularly its culture, philosophies, and institutions). Course content enables students to understand, translate, and appreciate a classical Greek text; relate literature to its historical or social background; recognize current relevance of ancient literature; and apply acquired knowledge to other subjects.

Classical Languages—Other
Other Classical Language courses.

Chinese I
Designed to introduce students to Chinese language and culture, Chinese I courses emphasize basic syntax, simple
vocabulary, written characters, and spoken tones so that students can read, write, speak, and understand the
language at a basic level within predictable areas of need, using customary courtesies and conventions. Chinese
culture is introduced through the art, literature, customs, and history of Chinese-speaking people.

06402A000  Chinese II
Chinese II courses build upon skills developed in Chinese I, extending students’ ability to understand and express
themselves in Chinese and increasing their vocabulary. Typically, students learn how to engage in discourse for
informative or social purposes, write expressions or passages that show understanding of sentence construction and
phrasing, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art
forms of Chinese-speaking people to deepen their understanding of the culture(s).
06403A000  Chinese III
Chinese III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06404A000  Chinese IV
Chinese IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Chinese language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of language rules and a strong vocabulary.

06405A000  Chinese V
Chinese V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06406A000  Chinese for Native Speakers
Chinese for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Chinese for Native Speakers courses often move faster than do regular Chinese foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06407A000  Chinese Field Experience
Chinese Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Chinese is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06408A000  Chinese Conversation and Culture
Chinese Conversation and Culture courses provide students with an introduction to the Chinese language and the culture(s) of Chinese-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06409A000  Chinese Literature
Chinese Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Chinese.

06410A000  IB Language A (non-English)—Chinese
IB Language A (non-English)—Chinese courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06411A000  IB Language B—Chinese
IB Language B—Chinese courses prepare students to take the International Baccalaureate Language B exams at
either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06412A000 AP Chinese
Designed by the College Board to parallel third-year college-level courses in Chinese Composition and Conversation, AP Chinese Language courses build upon prior knowledge and develop students’ ability to understand others and express themselves (in Chinese) accurately, coherently, and fluently in both formal and informal situations. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

06421A000 Japanese I
Designed to introduce students to Japanese language and culture, Japanese I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Japanese culture is introduced through the art, literature, customs, and history of the Japanese-speaking people.

06422A000 Japanese II
Japanese II courses build upon skills developed in Japanese I, extending students’ ability to understand and express themselves in Japanese and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Japanese-speaking people to deepen their understanding of the culture(s).

06423A000 Japanese III
Japanese III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06424A000 Japanese IV
Japanese IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Japanese language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06425A000 Japanese V
Japanese V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06426A000 Japanese for Native Speakers
Japanese for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Japanese for Native Speakers courses often move faster than do regular Japanese foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.
Japanese Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Japanese is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Japanese Conversation and Culture courses provide an introduction to the Japanese language and the culture(s) of Japanese-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Japanese Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Japanese.

IB Language A (non-English)—Japanese courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Japanese courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

AP Japanese courses build upon prior knowledge and develop students’ ability to understand others and express themselves (in Japanese) accurately, coherently, and fluently in both formal and informal situations. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

Korean I courses introduce students to Korean language and culture. Korean I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Korean culture is introduced through the art, literature, customs, and history of the Korean-speaking people.

Korean II courses build upon skills developed in Korean I, extending students’ ability to understand and express themselves in Korean and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Korean-speaking people to deepen their understanding of the culture(s).

Korean III courses focus on having students express increasingly complex concepts both verbally and in writing while
showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06444A000  Korean IV
Korean IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Korean language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06445A000  Korean V
Korean V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06446A000  Korean for Native Speakers
Korean for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Korean for Native Speakers courses often move faster than do regular Korean foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06447A000  Korean Field Experience
Korean Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Korean is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06448A000  Korean Conversation and Culture
Korean Conversation and Culture courses provide students with an introduction to the Korean language and the culture(s) of Korean-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06449A000  Korean Literature
Korean Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Korean.

06450A000  IB Language A (non-English)—Korean
IB Language A (non-English)—Korean courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.
IB Language B—Korean
IB Language B—Korean courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

East Asian Language I
Designed to introduce students to an East Asian language not otherwise described (e.g., Tibetan and Mongolian) and culture, East Asian Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

East Asian Language II
East Asian Language II courses build upon skills developed in East Asian Language I, extending students' ability to understand and express themselves in an East Asian language not otherwise described (e.g., Tibetan and Mongolian) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

East Asian Language III
East Asian Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

East Asian Language IV
East Asian Language IV courses focus on advancing students' skills and abilities to read, write, speak, and understand the East Asian Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

East Asian Language V
East Asian Language V courses extend students' facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

East Asian Language for Native Speakers
East Asian Language for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue not otherwise described (e.g., Tibetan and Mongolian). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), East Asian Language for Native Speakers courses often move faster than do regular East Asian Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

East Asian Language Field Experience
east Asian Language Field Experience courses place students in an environment in which they interact with native
speakers, most typically in a setting where an East Asian language (e.g., Tibetan and Mongolian) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

**06488A000 East Asian Language Conversation and Culture**
East Asian Language Conversation and Culture courses provide students with an introduction to an East Asian language not otherwise described (e.g., Tibetan and Mongolian) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

**06489A000 East Asian Literature**
East Asian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in an East Asian language not otherwise described (e.g., Tibetan and Mongolian).
06490A000  IB Language A (non-English)—East Asian Language
IB Language A (non-English)—East Asian Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06491A000  IB Language B—East Asian Language
IB Language B—East Asian Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

6499A000  East Asian Language—Other
Other East Asian Language courses.

06501A000  Vietnamese I
Designed to introduce students to Vietnamese language and culture, Vietnamese I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Vietnamese culture is introduced through the art, literature, customs, and history of the Vietnamese-speaking people.

06502A000  Vietnamese II
Vietnamese II courses build upon skills developed in Vietnamese I, extending students’ ability to understand and express themselves in Vietnamese and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Vietnamese speaking people to deepen their understanding of the culture(s).

06503A000  Vietnamese III
Vietnamese III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06504A000  Vietnamese IV
Vietnamese IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Vietnamese language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06505A000  Vietnamese V
Vietnamese V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).
06506A000  Vietnamese for Native Speakers
Vietnamese for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Vietnamese for Native Speakers courses often move faster than do regular Vietnamese foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06507A000  Vietnamese Field Experience
Vietnamese Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Vietnamese is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.
06508A000  Vietnamese Conversation and Culture
Vietnamese Conversation and Culture courses provide students with an introduction to the Vietnamese language and the culture(s) of Vietnamese-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06509A000  Vietnamese Literature
Vietnamese Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Vietnamese.

06510A000  IB Language A (non-English)—Vietnamese
IB Language A (non-English)—Vietnamese courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06511A000  IB Language B—Vietnamese
IB Language B—Vietnamese courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06521A000  Filipino I
Designed to introduce students to Filipino language and culture, Filipino I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Filipino culture is introduced through the art, literature, customs, and history of the people of the Philippines.

06522A000  Filipino II
Filipino II courses build upon skills developed in Filipino I, extending students’ ability to understand and express themselves in Filipino and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of the Philippines to deepen their understanding of the culture(s).

06523A000  Filipino III
Filipino III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06524A000  Filipino IV
Filipino IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Filipino language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.
Filipino V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Filipino for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Filipino for Native Speakers courses often move faster than do regular Filipino foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.
06527A000  Filipino Field Experience
Filipino Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Filipino is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06528A000  Filipino Conversation and Culture
Filipino Conversation and Culture courses provide students with an introduction to the Filipino language and the culture(s) of the people of the Philippines, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06529A000  Filipino Literature
Filipino Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Filipino.

06530A000  IB Language A (non-English)—Filipino
IB Language A (non-English)—Filipino courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.

06531A000  IB Language B—Filipino
IB Language A (non-English)—Filipino courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06581A000  Southeast Asian Language I
Designed to introduce students to a Southeast Asian language not otherwise described (e.g., Malay, Thai, and Lao) and culture, Southeast Asian Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

06582A000  Southeast Asian Language II
Southeast Asian Language II courses build upon skills developed in Southeast Asian Language I, extending students' ability to understand and express themselves in a Southeast Asian language not otherwise described (e.g., Malay, Thai, and Lao) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

06583A000  Southeast Asian Language III
Southeast Asian Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.
Southeast Asian Language IV
Southeast Asian Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Southeast Asian Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Southeast Asian Language V
Southeast Asian Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).
Southeast Asian Language for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue not otherwise described (e.g., Malay, Thai, and Lao). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Southeast Asian Language for Native Speakers courses often move faster than do regular Southeast Asian Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

Southeast Asian Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Southeast Asian language (e.g., Malay, Thai, and Lao) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Southeast Asian Language Conversation and Culture courses provide students with an introduction to a Southeast Asian language not otherwise described (e.g., Malay, Thai, and Lao) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Southeast Asian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Southeast Asian language not otherwise described (e.g., Malay, Thai, and Lao).

IB Language A (non-English)—Southeast Asian Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Southeast Asian Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate at native speed.

Southeast Asian Language—Other courses.

Russian I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Russian culture is introduced through the art, literature, customs, and history of the Russian-speaking people.

Russian II courses build upon skills developed in Russian I, extending students' ability to understand and express
themselves in Russian and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Russian-speaking people to deepen their understanding of the culture(s).

06603A000  Russian III

Russian III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.
06604A000  Russian IV
Russian IV courses focus on advancing students' skills and abilities to read, write, speak, and understand the Russian language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06605A000  Russian V
Russian V courses extend students' facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06606A000  Russian for Native Speakers
Russian for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Russian for Native Speakers courses often move faster than do regular Russian foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

06607A000  Russian Field Experience
Russian Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Russian is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06608A000  Russian Conversation and Culture
Russian Conversation and Culture courses provide students with an introduction to the Russian language and the culture(s) of Russian-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06609A000  Russian Literature
Russian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Russian.

610A000  IB Language A (non-English)—Russian
IB Language A (non-English)—Russian courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.

06611A000  IB Language—Russian
IB Language B—Russian courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06641A000  Balto-Slavic Language I
Designed to introduce students to a Balto-Slavic language not otherwise described (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian) and culture, Balto-Slavic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

06642A000 Balto-Slavic Language II

Balto-Slavic Language II courses build upon skills developed in Balto-Slavic Language I, extending students’ ability to understand and express themselves in a Balto-Slavic language not otherwise described (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).
Balto-Slavic Language III
Balto-Slavic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Balto-Slavic Language IV
Balto-Slavic Language IV courses focus on advancing students' skills and abilities to read, write, speak, and understand the Balto-Slavic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Balto-Slavic Language V
Balto-Slavic Language V courses extend students' facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Balto-Slavic Language for Native Speakers
Balto-Slavic Language for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue not otherwise described (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Balto-Slavic Language for Native Speakers courses often move faster than do regular Balto-Slavic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

Balto-Slavic Language Field Experience
Balto-Slavic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Balto-Slavic language (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Balto-Slavic Language Conversation and Culture
Balto-Slavic Language Conversation and Culture courses provide students with an introduction to a Balto-Slavic language not otherwise described (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Balto-Slavic Literature
Balto-Slavic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Balto-Slavic language not otherwise described (e.g., Polish, Armenian, Serbo-Croatian, and Lithuanian).

IB Language A (non-English)—Balto-Slavic Language
IB Language A (non-English)—Balto-Slavic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.
IB Language B—Balto-Slavic Language
IB Language B—Balto-Slavic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Balto-Slavic Language—Other
Other Balto-Slavic language courses.
Turkic/Ural-Altaic Language I
Designed to introduce students to a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) and culture, Turkic/Ural-Altaic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

Turkic/Ural-Altaic Language II
Turkic/Ural-Altaic Language II courses build upon skills developed in Turkic/Ural-Altaic Language I, extending students’ ability to understand and express themselves in a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Turkic/Ural-Altaic Language III
Turkic/Ural-Altaic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Turkic/Ural-Altaic Language IV
Turkic/Ural-Altaic Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Turkic/Ural-Altaic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Turkic/Ural-Altaic Language V
Turkic/Ural-Altaic Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Turkic/Ural-Altaic Language for Native Speakers
Turkic/Ural-Altaic Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue (e.g., Turkish, Finnish, and Hungarian). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Turkic/Ural-Altaic Language for Native Speakers courses often move faster than do regular Turkic/Ural-Altaic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

Turkic/Ural-Altaic Language Field Experience
Turkic/Ural-Altaic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Turkic/Ural-Altaic Language Conversation and Culture
Turkic/Ural-Altaic Language Conversation and Culture courses provide students with an introduction to a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) and the culture(s) of the people, placing greater emphasis on
speaking and listening skills while de-emphasizing writing and reading the language.

06669A000  Turkic/Ural-Altaic Literature
Turkic/Ural-Altaic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian).

06670A000  IB Language A (non-English)—Turkic/Ural-Altaic Language
IB Language A (non-English)—Turkic/Ural-Altaic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native
IB Language B—Turkic/Ural-Altaic Language

IB Language B—Turkic/Ural-Altaic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Turkic/Ural-Altaic Language—Other

Other Turkic/Ural-Altaic language courses.

Iranian/Persian Language I

Designed to introduce students to an Iranian/Persian language (e.g., Persian, Kurdish, and Pashto) and culture, Iranian/Persian Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

Iranian/Persian Language II

Iranian/Persian Language II courses build upon skills developed in Iranian/Persian Language I, extending students’ ability to understand and express themselves in an Iranian/Persian language (e.g., Persian, Kurdish, and Pashto) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Iranian/Persian Language III

Iranian/Persian Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Iranian/Persian Language IV

Iranian/Persian Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Iranian/Persian Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Iranian/Persian Language V

Iranian/Persian Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Iranian/Persian Language for Native Speakers

Iranian/Persian Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue (e.g., Persian, Kurdish, and Pashto). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Iranian/Persian Language for Native Speakers courses often move faster than do regular Iranian/Persian Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.
Iranian/Persian Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where an Iranian/Persian language (e.g., Persian, Kurdish, and Pashto) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Iranian/Persian Language Conversation and Culture courses provide students with an introduction to an Iranian/Persian language (e.g., Persian, Kurdish, and Pashto) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.
06689A000  Iranian/Persian Literature
Iranian/Persian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in an Iranian/Persian language (e.g., Persian, Kurdish, and Pashto).

06690A000  IB Language A (non-English)—Iranian/Persian Language
IB Language A (non-English)—Iranian/Persian Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06691A000  IB Language B—Iranian/Persian Language
IB Language B—Iranian/Persian Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06699A000  Iranian/Persian Language—Other
Other Iranian/Persian language courses.

06701A000  Hebrew I
Designed to introduce students to Hebrew language and culture, Hebrew I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Hebrew culture is introduced through the art, literature, customs, and history of the Hebrew-speaking people.

06702A000  Hebrew II
Hebrew II courses build upon skills developed in Hebrew I, extending students’ ability to understand and express themselves in Hebrew and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Hebrew-speaking people to deepen their understanding of the culture(s).

06703A000  Hebrew III
Hebrew III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06704A000  Hebrew IV
Hebrew IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Hebrew language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06705A000  Hebrew V
Hebrew V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain
general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06706A000  Hebrew for Native Speakers
Hebrew for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Hebrew for Native Speakers courses often move faster than do regular Hebrew foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.
06707A000 Hebrew Field Experience
Hebrew Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Hebrew is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

06708A000 Hebrew Conversation and Culture
Hebrew Conversation and Culture courses provide students with an introduction to the Hebrew language and the culture(s) of Hebrew-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06709A000 Hebrew Literature
Hebrew Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Hebrew.

06710A000 IB Language A (non-English)—Hebrew
IB Language A (non-English)—Hebrew courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

06711A000 IB Language B—Hebrew
IB Language B—Hebrew courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

06712A000 IB Classical Languages—Hebrew
IB Classical Languages—Hebrew courses seek to strike a balance between the study of the language itself (structure, meaning, and formulation) and the study of the civilization it reflects (particularly its culture, philosophies, and institutions). Course content enables students to understand, translate, and appreciate a classical Hebrew text; relate literature to its historical or social background; recognize current relevance of ancient literature; and apply acquired knowledge to other subjects.

06721A000 Arabic I
Designed to introduce students to Arabic language and culture, Arabic I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Arabic culture is introduced through the art, literature, customs, and history of the Arabic-speaking people.

06722A000 Arabic II
Arabic II courses build upon skills developed in Arabic I, extending students’ ability to understand and express themselves in Arabic and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Arabic-speaking people to deepen their understanding of the culture(s).
06723A000 Arabic III
Arabic III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06724A000 Arabic IV
Arabic IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Arabic language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.
Arabic V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Arabic for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Arabic for Native Speakers courses often move faster than do regular Arabic foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

Arabic Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Arabic is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Arabic Conversation and Culture courses provide students with an introduction to the Arabic language and the culture(s) of Arabic-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Arabic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Arabic.

IB Language A (non-English)—Arabic courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Arabic courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

IB Classical Languages—Arabic courses seek to strike a balance between the study of the language itself (structure, meaning, and formulation) and the study of the civilization it reflects (particularly its culture, philosophies, and institutions). Course content enables students to understand, translate, and appreciate a classical Arabic text; relate literature to its historical or social background; recognize current relevance of ancient literature; and apply acquired knowledge to other subjects.
Other Semitic and Near/Middle Eastern language courses.

Swahili I

Designed to introduce students to Swahili language and culture, Swahili I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Swahili culture is introduced through the art, literature, customs, and history of the Swahili-speaking people.
Swahili II
Swahili II courses build upon skills developed in Swahili I, extending students’ ability to understand and express themselves in Swahili and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Swahili-speaking people to deepen their understanding of the culture(s).

Swahili III
Swahili III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Swahili IV
Swahili IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Swahili language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Swahili V
Swahili V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Swahili for Native Speakers
Swahili for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue. Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Swahili for Native Speakers courses often move faster than do regular Swahili foreign language courses and emphasize literary development (with a study of literature and composition). These courses may also incorporate more of the culture or history of the people than do regular foreign language courses and introduce translation skills.

Swahili Field Experience
Swahili Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where Swahili is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Swahili Conversation and Culture
Swahili Conversation and Culture courses provide students with an introduction to the Swahili language and the culture(s) of Swahili-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Swahili Literature
Swahili Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in Swahili.

IB Language A (non-English)—Swahili
IB Language A (non-English)—Swahili courses prepare students to take the International Baccalaureate Language A
exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Swahili

IB Language B—Swahili courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.
Non-Semitic African Language I
Designed to introduce students to a Non-Semitic African language not otherwise described (e.g., Ibo, Yoruba, and Amharic) and culture, Non-Semitic African Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

Non-Semitic African Language II
Non-Semitic African Language II courses build upon skills developed in Non-Semitic African Language I, extending students’ ability to understand and express themselves in a Non-Semitic African language not otherwise described (e.g., Ibo, Yoruba, and Amharic) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Non-Semitic African Language III
Non-Semitic African Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Non-Semitic African Language IV
Non-Semitic African Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Non-Semitic African Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Non-Semitic African Language V
Non-Semitic African Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Non-Semitic African Language for Native Speakers
Non-Semitic African Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue nor otherwise described (e.g., Ibo, Yoruba, and Amharic). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Non-Semitic African Language for Native Speakers courses often move faster than do regular Non-Semitic African Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

Non-Semitic African Language Field Experience
Non-Semitic African Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Non-Semitic African language (e.g., Ibo, Yoruba, and Amharic) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Non-Semitic African Language Conversation and Culture
Non-Semitic African Language Conversation and Culture courses provide students with an introduction to a Non-Semitic African language not otherwise described (e.g., Ibo, Yoruba, and Amharic) and the culture(s) of the people,
placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06789A000  Non-Semitic African Literature
Non-Semitic African Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Non-Semitic African language not otherwise described (e.g., Ibo, Yoruba, and Amharic).

06790A000  IB Language A (non-English)—Non-Semitic African Language
IB Language A (non-English)—Non-Semitic African Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.
IB Language B—Non-Semitic African Language
IB Language B—Non-Semitic African Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Non-Semitic African Language—Other
Other Non-Semitic African language courses.

American Sign Language I
Designed to introduce students to American Sign Language, American Sign Language I courses enable students to communicate with deaf persons through finger spelling, signed words, and gestures. Course topics may include the culture of and issues facing deaf people.

American Sign Language II
American Sign Language II courses build upon skills developed in American Sign Language I, extending students’ ability to understand and express themselves in American Sign Language and increasing their vocabulary and speed. Typically, students learn how to engage in discourse for informative or social purposes and to comprehend the language when signed slowly.

American Sign Language III
American Sign Language III courses focus on having students express increasingly complex concepts while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when viewing the language signed at normal rates and conversing easily within limited situations.

American Sign Language IV
American Sign Language IV courses focus on advancing students’ skills and abilities to sign and understand the language so that they can maintain simple conversations with sufficient vocabulary and in an acceptable pace and have sufficient comprehension skills to understand the language when signed at a normal pace.

American Sign Language V
American Sign Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs.

American Sign Language—Other
Other American Sign Language courses.

American Indian Language I
Designed to introduce students to a American Indian language not otherwise described (e.g., Navajo, Cherokee, and Kree) and culture, American Indian Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

American Indian Language II
American Indian Language II courses build upon skills developed in American Indian Language I, extending students’ ability to understand and express themselves in a American Indian language not otherwise described (e.g., Navajo, Cherokee, and Kree) and increasing their vocabulary. Typically, students learn how to engage in discourse for
informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

**06823A000 American Indian Language III**

American Indian Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.
American Indian Language IV
American Indian Language IV courses focus on advancing students' skills and abilities to read, write, speak, and understand the American Indian Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

American Indian Language V
American Indian Language V courses extend students' facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

American Indian Language for Native Speakers
American Indian Language for Native Speakers courses support, reinforce, and expand students' knowledge of their own tongue not otherwise described (e.g., Navajo, Cherokee, and Kree). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), American Indian Language for Native Speakers courses often move faster than do regular American Indian Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

American Indian Language Field Experience
American Indian Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a American Indian language (e.g., Navajo, Cherokee, and Kree) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

American Indian Language Conversation and Culture
American Indian Language Conversation and Culture courses provide students with an introduction to a American Indian language not otherwise described (e.g., Navajo, Cherokee, and Kree) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while deemphasizing writing and reading the language.

American Indian Literature
American Indian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a American Indian language not otherwise described (e.g., Navajo, Cherokee, and Kree).

IB Language A (non-English)—American Indian Language
IB Language A (non-English)—American Indian Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.

IB Language B—American Indian Language
IB Language B—American Indian Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.
06839A000  American Indian Language—Other
Other American Indian language courses.

06841A000  Indic Language I
Designed to introduce students to an Indic language (e.g., Hindi, Urdu, Panjabi, and Romany) and culture, Indic Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.
Indic Language II courses build upon skills developed in Indic Language I, extending students’ ability to understand and express themselves in an Indic language (e.g., Hindi, Urdu, Panjabi, and Romany) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

Indic Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

Indic Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Indic Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

Indic Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

Indic Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue (e.g., Hindi, Urdu, Panjabi, and Romany). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Indic Language for Native Speakers courses often move faster than do regular Indic Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

Indic Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where an Indic language (e.g., Hindi, Urdu, Panjabi, and Romany) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.

Indic Language Conversation and Culture courses provide students with an introduction to an Indic language (e.g., Hindi, Urdu, Panjabi, and Romany) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

Indic Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in an Indic language (e.g., Hindi, Urdu, Panjabi, and Romany).
IB Language A (non-English)—Indic Language
IB Language A (non-English)—Indic Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students’ accuracy and fluency in the language, which is usually the students’ native tongue.

IB Language B—Indic Language
IB Language B—Indic Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students’ accuracy and fluency in oral and written communication (usually in the students’ “second” language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.
06859A000  Indic Language—Other
Other Indic language courses.

06861A000  Malayo-Polynesian Language I
Designed to introduce students to a Malayo-Polynesian language (e.g., Malay, Indonesian, Hawaiian, and Samoan) and culture, Malayo-Polynesian Language I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

06862A000  Malayo-Polynesian Language II
Malayo-Polynesian Language II courses build upon skills developed in Malayo-Polynesian Language I, extending students’ ability to understand and express themselves in a Malayo-Polynesian language (e.g., Malay, Indonesian, Hawaiian, and Samoan) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

06863A000  Malayo-Polynesian Language III
Malayo-Polynesian Language III courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

06864A000  Malayo-Polynesian Language IV
Malayo-Polynesian Language IV courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Malayo-Polynesian Language being studied so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

06865A000  Malayo-Polynesian Language V
Malayo-Polynesian Language V courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

06866A000  Malayo-Polynesian Language for Native Speakers
Malayo-Polynesian Language for Native Speakers courses support, reinforce, and expand students’ knowledge of their own tongue (e.g., Malay, Indonesian, Hawaiian, and Samoan). Because students understand at least the rudiments and structure of the language and have a working vocabulary (to a greater or lesser degree), Malayo-Polynesian Language for Native Speakers courses often move faster than do regular Malayo-Polynesian Language courses and emphasize literary development (with a study of literature and composition). These courses may also include the culture or history of the people and introduce translation skills.

06867A000  Malayo-Polynesian Language Field Experience
Malayo-Polynesian Language Field Experience courses place students in an environment in which they interact with native speakers, most typically in a setting where a Malayo-Polynesian language (e.g., Malay, Indonesian, Hawaiian, and Samoan) is the main language spoken. Students strengthen their language skills (reading, writing, listening, and speaking) and increase their ability to interact naturally.
06868A000 Malayo-Polynesian Language Conversation and Culture
Malayo-Polynesian Language Conversation and Culture courses provide students with an introduction to a Malayo-Polynesian language (e.g., Malay, Indonesian, Hawaiian, and Samoan) and the culture(s) of the people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

06869A000 Malayo-Polynesian Literature
Malayo-Polynesian Literature courses place an emphasis on reading, understanding, and reacting in writing to literature written in a Malayo-Polynesian language (e.g., Malay, Indonesian, Hawaiian, and Samoan).
IB Language A (non-English)—Malayo-Polynesian Language

IB Language A (non-English)—Malayo-Polynesian Language courses prepare students to take the International Baccalaureate Language A exams at either the Subsidiary or Higher level. Course content includes in-depth study of literature chosen from the appropriate IB list of texts and authors, written analyses of this literature, and other oral and written assignments. Course content is designed to improve students' accuracy and fluency in the language, which is usually the students' native tongue.

IB Language B—Malayo-Polynesian Language

IB Language B—Malayo-Polynesian Language courses prepare students to take the International Baccalaureate Language B exams at either the Subsidiary or Higher level. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). Students preparing to take the Subsidiary level exam will be able to understand native speakers; students preparing for the Higher level exam will be able to communicate fluently at native speed.

Malayo-Polynesian Language—Other

Other Malayo-Polynesian language courses.

Foreign Language and Literature—Aide

Foreign Language and Literature—Aide courses offer students the opportunity to assist instructors in preparing, organizing or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Foreign Language and Literature—Independent Study

Foreign Language and Literature—Independent Study courses, often conducted with instructors as mentors, enable students to explore foreign language-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular language, to explore a topic in greater detail, or to develop more advanced skills.

Foreign Language and Literature—Workplace Experience

Foreign Language and Literature—Workplace Experience courses provide students with work experience in a field related to foreign language and literature. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Foreign Language and Literature—Other

Other Foreign Language and Literature courses.
07 Religious Education and Theology

07001A000 Religious Foundations
Religious Foundations courses’ primary objectives include instruction in the history, tenets, and organization of a religion; development of personal faith and conviction; and exposure to the ways in which daily life may reflect personal religious beliefs. These courses typically include various components particular to a specific religion, such as religious sacraments and symbols, food laws, the authority and structure of the church, the church calendar, and so on.

07002A000 Comparative Religion
Comparative Religion courses survey and compare the various forms and values of several world religions, offering students a basic understanding of the world’s diverse religious faiths and practices. Course topics typically include the belief systems of adherents; the relationships among humans, nature, ancestors, and the spiritual world; and the historical development of each religion.

07003A000 Eastern Religions
Similar to Comparative Religion, Eastern Religions courses provide students with an overview of various religions and belief systems but focus on those of the Eastern World. Particular religious or philosophical systems of study usually include Buddhism, Hinduism, Islam, Taoism, Shintoism, and Confucianism, among others.

07004A000 Western Religions
Similar to Comparative Religion, Western Religions courses provide students with an overview of various religions and belief systems but focus on those of the Western World. Particular religious or philosophical systems of study usually include Judaism; Christianity (including various faiths such as those of Catholics, Episcopalians, Baptists, Quakers, Mormons, Mennonites, and others); and Native Indian belief systems, among others.

07005A000 Scriptures
Scriptures courses emphasize understanding and interpreting the sacred writings of a faith (such as the Bible, Torah, Koran, Book of Mormon, and so on) from the standpoint of a religious faith. Course objectives are designed so that students may comprehend the theological, doctrinal, and ethical messages contained within religious scriptures.

07006A000 Old Testament
Old Testament courses emphasize understanding and interpreting the sacred writings of the Old Testament from the standpoint of a religious faith and may focus on one or several books. Course content typically focuses on themes, theological concepts, and portrayal of ethical messages, but may also include critique and commentary.

07007A000 New Testament
New Testament courses emphasize understanding and interpreting the sacred writings of the New Testament from the standpoint of a religious faith and may focus on one or several religious books. Course content typically focuses on themes, theological concepts, and portrayal of ethical messages, but may also include critique and commentary.

07008A000 Bible History
Bible History courses treat the Bible as a historical document and provide an overview of significant biblical events. The content usually includes geography; the relationship among cultures, belief systems, and the events chronicled in the Bible; and early Jewish or Christian Church history.

07009A000 Christology
Christology courses concern the work and life of Jesus Christ and the literature related to him. Course content is
typically based on Christian scriptures, leading to an examination of the message of Jesus Christ and applying His message to daily life.

**07010A000 Religious Figures**

Religious Figures courses offer students the opportunity to examine the lives and messages of one or several people who are central to a religious faith, such as a prophet, apostle, philosopher, or leader. In addition to a historical study of the person (or people), these courses typically emphasize how the teachings of these individuals influence the faith and culture of a religious group.
07011A000  Liturgy and Prayer
Liturgy and Prayer courses vary widely, usually depending upon the underlying religion, but generally seek to inform students about the meaning and message of public and private worship. Course content typically includes an examination or exploration of common rituals, spoken or sung prayers, and observed sacraments.

07012A000  Prayer and Spirituality
Prayer and Spirituality courses vary widely, but seek to enable students to experience deeper communion with the divine through public and private worship. Course content may include an examination or exploration of traditional and contemporary practices.

07013A000  Religious Ethics and Morality
Usually including an introduction to or examination of the tenets of a particular faith, Religious Ethics and Morality courses seek to enable students to apply the moral teachings of a faith to their own lives, to the larger community, and to their decision-making processes. Course content may focus on such issues as peace and justice, death and dying, human sexuality, professional ethics, and human rights.

07014A000  Justice, Peace, and Faith
Justice, Peace, and Faith courses examine the scriptural foundations for justice, typically with a historical overview of a faith’s social teaching. These courses discuss such topics as poverty, hunger, conflict, discrimination, justice, and environmental issues, with a view toward developing students’ ability to critically reflect upon and analyze their own roles and responsibilities.

07015A000  Faith and Lifestyle
Faith and Lifestyle courses focus on the development of young adults from puberty to adulthood, approached from the perspective of a faith or church. In these courses, the religion’s values and traditions provide an underpinning for examining such topics as identity, independence, sexuality, employment, and leisure. Typically, Faith and Lifestyle courses include discussions about adult roles—single life, marriage, religious life, and ordained ministry.

07016A000  Ministry
Ministry courses introduce students to the vocation of service. Students may learn counseling skills, plan and participate in religious services, and minister to younger students or to members of the local community (assisting in hospitals and convalescent homes, crisis centers, soup kitchens, and so on).

07995A000  Religious Education and Theology—Aide
Religious Education and Theology—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

07997A000  Religious Education and Theology—Independent Study
Religious Education and Theology—Independent Study courses, often conducted with instructors, members of the clergy, or religious leaders as mentors, enable students to explore topics of interest related to religion or theology. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular religion, to explore a topic in greater detail, or to develop more advanced skills.

07998A000  Religious Education and Theology—Workplace Experience
Religious Education and Theology—Workplace Experience courses provide students with work experience in a field related to religion and theology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.
07999A000   Religious Education and Theology—Other
Other Religious Education and Theology courses.
08 Physical, Health, and Safety Education

08001A000 Physical Education
Physical Education courses provide students with knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

08002A000 Team Sports
Team Sports courses provide students with knowledge, experience, and an opportunity to develop skills in more than one team sport (such as volleyball, basketball, soccer, and so on).

08003A000 Individual/Dual Sports
Individual/Dual Sports courses provide students with knowledge, experience, and an opportunity to develop skills in more than one individual or dual sport (such as tennis, golf, badminton, jogging/running, racquetball, and so on).

08004A000 Recreation Sports
Recreation Sports courses provide students with knowledge, experience, and an opportunity to develop skills in more than one recreational sport or outdoor pursuit (such as adventure activities, croquet, Frisbee, wall climbing, bocce ball, fishing, hiking, cycling, and so on).

08005A000 Fitness/Conditioning Activities
Fitness/Conditioning Activities courses emphasize conditioning activities that help develop muscular strength, flexibility, and cardiovascular fitness.

08006A000 Corps Movement
Corps Movement courses emphasize physical conditioning, fundamentals of movement, group precision, and public performance. The courses may be intended for members of various teams, including flag corps, rifle corps, cheerleading squads, and so on.

08007A000 Adapted Physical Education
These courses provide physical education activities (sports, fitness, and conditioning) adapted for students with special needs.

08008A000 Gymnastics
Gymnastics courses are designed to help students develop knowledge and skills in gymnastics, stunts, and tumbling while emphasizing safety. Floor gymnastics may be supplemented by the use of gymnastic equipment such as balance beam, uneven bars, parallel bars, rings, and so on. Gymnastic courses may include other components such as the history of gymnastics and conditioning.

08009A000 Weight Training
Weight Training courses help students develop knowledge and skills with free weights and universal stations while emphasizing safety and proper body positioning; they may include other components such as anatomy and conditioning.

08010A000 Aquatics/Water Sports
Aquatic/Water Sports courses help students develop skills useful or necessary in an aquatic environment. They may focus on swimming and competitive strokes, such as freestyle, breaststroke, butterfly, and so on or may involve
team-oriented water sports, such as water polo and relay swimming. These courses may also include (or concentrate exclusively on) diving and/or lifesaving skills.

08011A000  Tennis
Tennis courses help students develop knowledge, skills, and abilities related to the sport of singles or doubles tennis, including shots (such as serves, forehand strokes, backhand strokes, and lobs), scoring, and strategy.

08012A000  Self-defense
Self-defense courses help students develop knowledge, skills, and abilities to defend themselves against attack by others, usually incorporating traditional self-defense methods. Students may also be taught techniques from martial arts, addressing the differences among those arts and their contribution to defense and sport.
08013A000 Specific Sports Activities
Courses in Specific Sports Activities help students develop knowledge, experience, and skills in a single sport or activity (such as basketball, volleyball, track and field, and equestrian events) other than those coded within this section. (Dance is included under the Fine and Performing Arts subject area.)

08014A000 Physical Education Equivalent
These courses award physical education credit for other at-school activities, such as marching band or cheerleading. (Dance is included under the Fine and Performing Arts subject area.)

08015A000 Off-Campus Sports
These courses award physical education credit for off-campus sports activities such as swimming or weight training courses taken at a community center or community college.

08016A000 Lifetime Fitness Education
These courses emphasize acquiring knowledge and skills regarding lifetime physical fitness; content may include related topics such as nutrition, stress management, and consumer issues. Students may develop and implement a personal fitness plan.

08017A000 Sports Physiology
Courses in Sports Physiology examine human anatomy and physiology as they pertain to human movement and physical performance in sports activities. These courses may also emphasize the prevention and treatment of athletic injuries.

08047A000 Physical Education—Independent Study
Courses in Physical Education—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to physical education. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular sport or activity, to explore a topic in greater detail, or to develop more advanced skills.

08048A000 Physical Education—Workplace Experience
Physical Education—Workplace Experience courses provide work experience in a field related to physical education. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences encountered in the workplace.

08049A000 Physical Education—Other
Other Physical Education courses.

08051A000 Health Education
Topics covered within Health Education courses may vary widely, but typically include personal health (nutrition, mental health and stress management, drug/alcohol abuse prevention, disease prevention, and first aid) and consumer health issues. The courses may also include brief studies of environmental health, personal development, and/or community resources.

08052A000 Health and Fitness
Health and Fitness courses combine the topics of Health Education courses (nutrition, stress management, substance abuse prevention, disease prevention, first aid, and so on) with an active fitness component (typically including aerobic activity and fitness circuits) with the intention of conveying the importance of life-long wellness
Community Health
Community Health courses cover not only personal health topics (nutrition, stress management, substance abuse prevention, disease prevention, first aid, and so on), but also more general health issues. These additional topics may include (among others) available community resources, fundamentals of the nation’s health care system, contemporary world health issues, and career options within the health field.

Special Needs Health Education
Special Needs Health Education courses focus on the health requirements of individuals with special needs and emphasize meeting those needs within the home setting. These courses provide information regarding the elderly and individuals with disabilities, handicaps, and/or debilitating illnesses, along with strategies to prepare students for their possible roles as caretakers.
08055A000  Safety and First Aid
Safety and First Aid courses provide specialized instruction in first aid techniques, cardiopulmonary resuscitation (CPR), relief of obstructed airways, and general safety procedures and behaviors. These courses may include such topics as an overview of community agencies and hotlines providing emergency care and information and opportunities for first aid and CPR certification.

08056A000  Health for Parenting Teens
Designed for pregnant teens and/or parents, topics within Health for Parenting Teens courses cover a wide range of both health and parenting issues, typically including prenatal and postnatal care, health and well-being of young parents, child development, stress management, and parental/adult roles. The courses may also involve academic assistance, career exploration, financial management, and so on.

08057A000  Health and Life Management
Health and Life Management courses focus as much on consumer education topics (such as money management and evaluation of consumer information and advertising) as on personal health topics (such as nutrition, stress management, drug/alcohol abuse prevention, disease prevention, and first aid). Course objectives include helping students develop decision-making, communication, interpersonal, and coping skills and strategies.

08058A000  Substance Abuse Prevention
Substance Abuse Prevention courses focus specifically on the health risks of drugs, alcohol and tobacco. These courses provide information on the negative consequences of these products and teach students coping strategies to resist the influences (such as peers and media images) that may entice them to use these substances. Students may also explore the community resources available to them.

08097A000  Health Education—Independent Study
Courses in Health Education—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to health and health education. Independent Study courses may provide students with opportunity to expand expertise in a particular application, to explore a topic of special interest in greater detail, or to develop more advanced skills.

08098A000  Health Education—Workplace Experience
Health Education—Workplace Experience courses provide work experience in a field related to health education. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences encountered in the workplace.

08099A000  Health Education—Other
Other Health Education courses.

08151A000  Drivers’ Education—Classroom Only
Drivers’ Education—Classroom Only courses provide students with the knowledge to become safe drivers on America’s roadways. Topics in these courses include legal obligations and responsibility, rules of the road and traffic procedures, safe driving strategies and practices, and the physical and mental factors affecting the driver’s capability (including alcohol and other drugs).

08152A000  Drivers’ Education—Classroom and Laboratory
Drivers’ Education—Classroom and Laboratory courses provide students with the knowledge and experience to become safe drivers on America’s roadways. Topics in these courses cover legal obligations and responsibility, rules
of the road and traffic procedures, safe driving strategies and practices, and the physical and mental factors affecting
the driver’s capability (including alcohol and other drugs). Experience in driving a vehicle is an essential component
of these courses.

08197A000  Drivers’ Education—Independent Study
Courses in Drivers’ Education—Independent Study, often conducted with instructors as mentors, enable students to
explore topics of interest related to drivers’ education. Independent Study courses may serve as an opportunity for
students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more
advanced skills.

08198A000  Drivers’ Education—Workplace Experience
Drivers’ Education—Workplace Experience courses provide work experience in a field related to drivers’ education.
Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily
paid). These courses may include classroom activities as well, involving further study of the field or discussion
regarding experiences that students encounter in the workplace.
08199A000  Drivers’ Education—Other
Other Driver's Education courses.

08201A000  Physical Education/Health/Drivers’ Education
Physical Education/Health/Drivers’ Education courses combine a range of activities and topics involving physical skills, human health issues, and safe driving. They are offered in ways that cover two or three of these areas. The physical education portion of these courses draws on team, individual, dual, recreational, and/or conditioning activities. The human health portion typically covers issues such as nutrition, stress management, drug/alcohol abuse prevention, and first aid. The drivers’ education portion usually includes legal obligations and responsibilities, rules of the road and traffic procedures, safe driving strategies, and related topics.

08995A000  Physical, Health, and Safety Education—Aide
Physical, Health, and Safety Education—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

08997A000  Physical, Health, and Safety Education—Independent Study
Courses in Physical, Health, and Safety Education—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to physical, health, and safety education. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced physical, health and/or safety skills.

08998A000  Physical, Health, and Safety Education—Workplace Experience
Physical, Health, and Safety Education—Workplace Experience courses provide work experience in a field related to physical, health, and safety education. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

08999A000  Physical, Health, and Safety Education—Other
Other Physical, Health, and Safety Education courses.
09 Military Science

09001A000 Introduction to Jr. ROTC
Introduction to Junior Reserve Officer Training Corps (ROTC) courses introduce students to the purposes and objectives of the Reserve Officer Training Corps program, which seeks to educate high school students in citizenship, promote community service, and instill responsibility. As part of that introduction, course topics typically include a brief history of the military branches in the United States and the basics of military drill, ceremony, and rank structure.

09002A000 Military Jr. ROTC—unspecified branch
Although individual course sequences may vary, the primary objectives of Military Junior Reserve Officer Training Corps (ROTC) courses are to provide students with instruction in the history, organization, role, objectives, and achievements of a particular branch of the U.S. Armed Forces; help them develop personal fitness, strong character, and leadership qualities; and expose them to the career opportunities provided by the U.S. Armed Services. These courses typically cover such topics as military customs, courtesies, rank, drill, and ceremonies and also emphasize citizenship and scholarship. The course content typically includes subjects related to the particular branch being studied (such as map-reading, nautical skills, aerospace technology, or communication technologies), as well as more general subjects (international law, national defense, celestial navigation, and geopolitical strategy).

09003A000 ROTC Drill
Reserve Officer Training Corps (ROTC) Drill courses provide students with an additional opportunity to improve their skills in military precision. These courses emphasize marching style and formations, firearm manipulation, body coordination and mechanics, and performing as a member of an orchestrated team. Class members typically participate in ceremonies and competitions.

09004A000 Military Leadership
Military Leadership courses focus solely on increasing students’ leadership skills, particularly as they relate to military operations, customs, and hierarchies. These courses are typically a regular part of the ROTC programs described below (typically the final course within a program series); this Military Leadership course code and title should be used when those descriptions do not apply. The principles and skills taught in these courses include supervision, motivation, evaluation, and setting an example, and their application typically include military drill and inspections, athletic events, and other school activities.

09051A000 Army Junior ROTC I
Army Junior Reserve Officer Training Corps (ROTC) I courses include instruction in the organization and functions of the U.S. Army, leadership skills, and life skills education. The content of these courses cover (but is not limited to) the history and evolution of the Army, including its structure, operations, customs and courtesies; maps and navigation; first aid, personal hygiene, and field sanitation; and substance abuse prevention. These courses also introduce students to principles of leadership and citizenship.

09052A000 Army Junior ROTC II
Army Junior Reserve Officer Training Corps (ROTC) II courses build upon the content of Army Junior ROTC I and include (but are not limited to) ongoing instruction in leadership principles and citizenship; drill and ceremonies; organizational structure; command and staff relationships, functions, and responsibilities; significant military campaigns and leaders; map-reading and orienteering; weapon safety and marksmanship; and survival training.

09053A000 Army Junior ROTC III
Army Junior Reserve Officer Training Corps (ROTC) III courses build upon prior Army Junior ROTC courses, giving more emphasis to leadership development. These courses serve to strengthen students’ leadership skills (including
planning, problem-solving, motivation, and performance appraisal) and management skills (with regard to time, personnel, and other resources) through allowing them to assume leadership duties. Students study topics introduced in earlier years—such as military history, map-reading and orienteering, marksmanship, and drill and ceremonies—at a more advanced level and are also provided with military service opportunities.

09054A000 Army Junior ROTC IV

Army Junior Reserve Officer Training Corps (ROTC) IV courses focus on practical leadership by assigning students to command and staff positions in which they present instruction to lower Army Junior ROTC classes and continue to study and review staff functions and actions, staff-commander relationships, and leadership principles. Topics introduced in earlier years may be studied at more advanced levels.
09101A000  Naval Junior ROTC I
Naval Junior Reserve Officer Training Corps (ROTC) I courses emphasize citizenship and leadership development, as well as maritime heritage, sea power, and Naval operations and customs. These courses include (but are not limited to) an introduction to the Naval Junior ROTC program, U.S. Navy mission and organization, maritime geography, naval history, basic seamanship, oceanography, and health education.

09102A000  Naval Junior ROTC II
Naval Junior Reserve Officer Training Corps (ROTC) II courses build upon the content of Naval Junior ROTC I. These courses include (but are not limited to) leadership principles and discipline, citizenship, naval opportunities and career planning, naval ships and weaponry, seamanship, meteorology and weather, and survival training. Students continue to learn teamwork, naval history, and military principles.

09103A000  Naval Junior ROTC III
Naval Junior Reserve Officer Training Corps (ROTC) III courses build upon prior Naval Junior ROTC courses. These courses include (but are not limited to) leadership principles and discipline, military justice, international law and the sea, naval intelligence/strategies and national security, and sciences involved in naval operations, such as electricity, electronics, communications technologies, and so on. Students continue to learn teamwork, naval history, and military principles.

09104A000  Naval Junior ROTC IV
Naval Junior Reserve Officer Training Corps (ROTC) IV courses are focused on practical leadership, placing students in positions where they can learn, practice, and understand skills involved in leading others, such as supervision, motivation, evaluation, setting examples, and problem-solving. Application of these skills usually includes military drill and inspections, athletic events, and other school activities. Topics introduced in earlier years may be studied at more advanced levels.

09151A000  Air Force Junior ROTC I
Air Force Junior Reserve Officer Training Corps (ROTC) I courses include both aerospace studies and leadership/life skills education. In these courses, leadership/life skills lessons cover the heritage and development of the Air Force, including its structure, operations, customs, and courtesies. Aerospace topics include the development, history, and impact of flight; aircraft and spacecraft; and the environment in which these crafts operate.

09152A000  Air Force Junior ROTC II
Air Force Junior Reserve Officer Training Corps (ROTC) II courses include both aerospace studies and leadership/life skills education. In these courses, leadership/life skills lessons cover intercommunication skills, drill, and military ceremonies. Aerospace topics emphasize the science of flight, including factors of aerospace power, aircraft flight, and navigation.

09153A000  Air Force Junior ROTC III
Air Force Junior Reserve Officer Training Corps (ROTC) III courses include both aerospace studies and leadership/life skills education. These courses continue to develop students’ life and leadership skills and the ways in which they apply to military life. Aerospace topics emphasize space technology and exploration; examine national defense systems; and advance students’ knowledge of aviation, propulsion, and navigation.

09154A000  Air Force Junior ROTC IV
Air Force Junior Reserve Officer Training Corps (ROTC) IV courses include both aerospace studies and leadership/life skills education. The life skills education portion of these courses concentrates on leadership and management principles and career opportunities, and aerospace topics include advanced aerodynamics and aeronautics. Course content may also cover elements of national power and relationships between the nations of the
Marine Corps Junior Reserve Officer Training Corps (ROTC) I courses introduce the Marine Corps Junior ROTC program, with an emphasis on personal growth and responsibility along with general military subjects. These courses include (but are not limited to) physical training; health education, including hygiene, first aid, nutrition, and substance abuse prevention; and communication skills. In these courses, students are introduced to and study Marine Corps values and code of conduct; drill and ceremony; military uniforms, customs, and courtesies; military history; and the Marine Corps structure and chain of command.
**Marine Corps Junior ROTC II**
Marine Corps Junior Reserve Officer Training Corps (ROTC) II courses build upon Marine Corps Junior ROTC I. These courses emphasize personal growth and responsibility, leadership, and citizenship along with military subjects that typically include the mission, organization, and history of the Marine Corps; geography, maps, and navigation; drill and ceremony; and military justice. Students learn about such leadership skills as authority, responsibility, and accountability and citizenship topics including U.S. government structures, documents, and symbols.

**Marine Corps Junior ROTC III**
Marine Corps Junior Reserve Officer Training Corps (ROTC) III courses build upon prior Marine Corps Junior ROTC courses. These courses include (but are not limited to) leadership practice, including training, inspection and evaluation; public service career opportunities; and citizenship responsibilities. These courses cover such personal skills as financial planning, saving and investing, and evaluating credit and insurance terms. Students learn about the structures of other armed service branches, advance their mapping and navigation skills, and may study firearm use, safety and marksmanship. Students continue to learn teamwork, Marine Corps history, and military principles.

**Marine Corps Junior ROTC IV**
Marine Corps Junior Reserve Officer Training Corps (ROTC) IV courses focus on the practical application of skills learned throughout the program: leadership, communication (written and verbal), personal growth, and public service. These courses emphasize drill and ceremony, physical fitness, marksmanship, land navigation, and military history at more advanced levels than in previous courses.

**Military Science—Aide**
Military Science—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

**Military Science—Independent Study**
Courses in Military Science—Independent Study, often conducted with instructors/armed services personnel as mentors, enable students to explore topics of interest related to military science. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

**Military Science—Workplace Experience**
Military Science—Workplace Experience courses provide students with work experience within the field of military science and are supported by classroom attendance and discussion. In these courses, goals are set for the employment period, and classroom experience may involve further study in the field, improvement of employability skills, or discussion regarding the experiences and problems that students encounter on the job.

**Military Science—Other**
Other Military Sciences courses.
10  Computer and Information Sciences

10001A000  Introduction to Computers
Introduction to Computer courses introduce students to computers and peripheral devices, the functions and uses of computers, the language used in the computer industry, possible applications of computers, and occupations related to computer hardware and software. These courses typically explore legal and ethical issues associated with computer use, as well as how computers influence modern society. Students may also be required to perform some computer operations.

10002A000  Computing Systems
Computing Systems courses offer a broad exploration of the use of computers in a variety of fields. These courses have a considerable range of content, but typically include the introduction of robotics and control systems, computer-assisted design, computer-aided manufacturing systems, and other computer technologies as they relate to industry applications.

10003A000  Computer and Information Technology
Computer and Information Technology courses teach students to operate and use computer and information technology, emphasizing their role as tools to communicate more effectively, conduct research more efficiently, and increase productivity. Course content includes the legal and ethical issues involved with computer technology and use.

10004A000  Computer Applications
In Computer Applications courses, students acquire knowledge of and experience in the proper and efficient use of previously written software packages. These courses explore a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, and database programs, and they may also cover the use of electronic mail and desktop publishing.

10004A001  Computer Concepts and Software Applications  CTE Course
Computer Concepts and Software Applications is an orientation-level course designed to develop awareness and understanding of application software and equipment used by employees to perform tasks in business, marketing and management. Students will apply problem-solving skills to hands-on, real-life situations using a variety of software applications, such as word processing, spreadsheets, database management, presentation software, and desktop publishing. Students will explore topics related to computer concepts, operating systems, telecommunications and emerging technologies. The development of employability skills, as well as transition skills, will be included in the course as well as an understanding of the ethical considerations that arise in using information processing equipment and gaining access to available databases.

10005A000  Business Computer Applications
In Business Computer Applications courses, students acquire knowledge of and experience in the proper and efficient use of previously written software packages, particularly those used in the business world. Generally, these courses explore a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, and database programs, and they may also cover topics such as electronic mail, desktop publishing, and telecommunications.

10005A001  Information Processing I  CTE Course
Information Processing I is a skill-level course that includes the concepts and terminology related to the people, equipment, and procedures of information processing as well as skill development in the use of information processing equipment. Students will operate computer equipment to prepare memos, letters, reports, and forms. Students will create rough drafts, correct copy, process incoming and outgoing telephone calls and mail, and transmit
and receive messages electronically. Students will create, input, and update databases and spreadsheets. Students will create data directories; copy, rename, move, and delete files, and perform backup procedures. In addition, students will prepare files to merge, as well as create mailing labels and envelopes from merge files. Students will learn to locate and retrieve information from hard copy and electronic sources, and prepare masters for a presentations using presentation software. Students will apply proper grammar, punctuation, spelling and proofreading practices. Accuracy will be emphasized. Workplace skills as well as communication skills (thinking, listening, composing, revising, editing, and speaking) will be taught and integrated throughout this course.
10005A002  Information Processing II  CTE Course

Information Processing II is a skill-level course for students who have completed Information Processing I. Students will create and update documents using word processing and desktop publishing programs and put together slideshows, speaker notes and handouts using presentation software. Students will revise data in a stored database and use queries to create customized reports. Students will edit and utilize calculation functions in spreadsheets, integrate graphics, spreadsheets, tables, text and data into documents and reports, and create graphs and charts from spreadsheets. Students will learn to conduct research on the internet and/or intranet, prepare and answer routine correspondence, organize and maintain a filing system, maintain an appointment calendar, make travel arrangements, prepare itineraries and expense reports, and prepare and process timesheets. In addition, students will maintain inventory, order equipment and supplies, and perform routine equipment maintenance. Students will apply proper grammar, punctuation, spelling and proofreading practices to documents and reports. Accuracy will be emphasized. Workplace skills as well as communication skills will be taught and integrated throughout this course. A simulated information processing center or workbased learning experience may be used to provide students with the experience of working in the environment of an information processing center.

10006A000  Telecommunications

Telecommunications courses address the growth in global communications and the emerging equipment and systems needed to successfully communicate in a global environment. These courses cover such topics as data communication protocol and systems, government regulations of the communications industry, and the use of cost-effective and productive tools to transmit messages and data. In these courses, students may learn about such communication systems as e-mail, internet or ecommerce, LAN, WAN, voice transmission, cell phone technology, and traditional teleconferencing.

10007A000  IB Information Technology in a Global Society

IB Information Technology in a Global Society courses prepare students to take the International Baccalaureate Information Technology exams and examine the interaction among information, technology, and society. Course content is designed to help students develop a systematic, problem-solving approach to processing and analyzing information using a range of information tools. In these courses, students also discuss and evaluate how modern information technology affects individuals, relationships among people, and institutions and societies.

10008A000  Particular Topics in Computer Literacy

These courses examine particular topics related to general computer literacy other than those already described, such as privacy issues or instruction in using a particular software application.

10008A001  Digital Literacy & Responsibility  CTE Course

This foundation-level course prepares students to use technology in a proficient and responsible manner in school, in the workforce, and in everyday life. The course contains skills for working in an Internet or networked environment and the knowledge of what it means to be a good digital citizen and the ability to use technology responsibly. Topics include the benefits and risks of sharing information online, and the possible consequences of inappropriate sharing (oversharing). Students explore the legal and ethical dimensions of respecting creative work. Technology use is a vital employability skill for entry-level and upper-level management positions. Students may be provided with the opportunity to seek industry-recognized digital literacy certifications.

10047A000  Computer Literacy—Independent Study

Computer Literacy—Independent Study courses, often conducted with instructors as mentors, enable students to explore computer-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.
10048A000  Computer Literacy—Workplace Experience
Computer Literacy—Workplace Experience courses provide work experience in fields related to computer literacy. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10049A000  Computer Literacy—Other
Other Computer Literacy courses.

10051A000  Information Management
Information Management courses provide students with the knowledge and skills to develop and implement a plan for an information system that meets the needs of business. Students develop an understanding of information system theory, skills in administering and managing information systems, and the ability to analyze and design information systems.

10052A000  Database Management and Data Warehousing
Database Management and Data Warehousing courses provide students with the skills necessary to design databases to meet user needs. Courses typically address how to enter, retrieve, and manipulate data into useful information. More advanced topics may cover implementing interactive applications for common transactions and the utility of mining data.
10053A000  Database Applications
Database Application courses provide students with an understanding of database development, modeling, design, and normalization. These courses typically cover such topics as SELECT statements, data definition, manipulation, control languages, records, and tables. In these courses, students may use Oracle WebDB, SQL, PL/SQL, SPSS, and SAS and may prepare for certification.

10054A000  Data Systems/Processing
Data Systems/Processing courses introduce students to the uses and operation of computer hardware and software and to the programming languages used in business applications. Students typically use BASIC, COBOL, and/or RPL languages as they write flowcharts or computer programs and may also learn data-processing skills.

10055A000  Particular Topics in Management Information Systems
These courses examine particular topics in management information systems other than those already described.

10097A000  Management Information Systems—Independent Study
Management Information Systems—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to management information systems. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10098A000  Management Information Systems—Workplace Experience
Management Information Systems—Workplace Experience courses provide work experience in fields related to management information systems. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10099A000  Management Information Systems—Other
Other Management Information Systems courses.

10101A000  Network Technology
Network Technology courses address the technology involved in the transmission of data between and among computers through data lines, telephone lines, or other transmission media (such as hard wiring, cable television networks, radio waves, and so on). These courses may emphasize the capabilities of networks, network technology itself, or both. Students typically learn about network capabilities—including electronic mail, public networks, and electronic bulletin boards—and network technology—including network software, hardware, and peripherals involved in setting up and maintaining a computer network.

10102A000  Networking Systems
Networking Systems courses are designed to provide students with the opportunity to understand and work with hubs, switches, and routers. Students develop an understanding of LAN (local area network), WAN (wide area network), wireless connectivity, and Internet-based communications with a strong emphasis on network function, design, and installation practices. Students acquire skills in the design, installation, maintenance, and management of network systems that may help them obtain network certification.

10102A001  Computer Networking I  
Computer Networking I is a skill-level course designed to provide students with the skills needed to setup, configure, test, troubleshoot, maintain, and administer a data network using various network operating systems such as Novell, Windows, and Linux. Instruction will include network planning decisions, such as choosing an appropriate network
configuration, determining the performance level requirements considering the differences among operating systems, and recommending network interface cards and cabling. Students will also learn how to setup and manage file systems and resources, and network topologies, protocols, and system utilities to efficiently run software applications on a network. Students will learn to use basic operating system commands, install and configure networks, set up user accounts and rights, and establish user security and permissions.
Computer Networking II is a skill-level course for students who have completed Computer Networking I. Students will continue to learn skills to set up, configure, test, troubleshoot, maintain, and administer a data network using various network operating systems such as Novell, Windows, and Linux. Students will learn to use troubleshooting services, system monitoring utilities, and data backup and recovery systems. Instruction will include setting up and configuring various network services such as TCP/IP, DHCP, DNS, VPN, terminal services, e-mail, content filtering, and web services. Students will learn techniques to secure and protect network servers and data. Students will be introduced to some basic concepts regarding web server configuration. Students will also learn to use standard software tools to determine system vulnerabilities and correct these vulnerabilities by reconfiguring the operating system. Students will diagnose network problems using public domain network sniffer such as Ethereal. Instruction will include setting up and configuring a firewall, intrusion detection system, and encryption software for identifying and preventing potential network attacks.

Area Network Design and Protocols

Area Network Design and Protocols courses address the role of computers in a network system, the Open Systems Interconnection (OSI) model, structured wiring systems, and simple LAN (local area network) and WAN (wide area network) designs.

Router Basics

Router Basics courses teach students about router components, start-up, and configuration using CISCO routers, switches, and the IOS (Internetwork Operation System). These courses also cover such topics as TCP/IP protocol, IP addressing, subnet masks, and network trouble-shooting.

NetWare Routing

NetWare Routing courses introduce students to such topics as Virtual LANs (VLAN) and switched internetworking, comparing traditional shared local area network (LAN) configurations with switched LAN configurations, and they also discuss the benefits of using a switched VLAN architecture. These courses also may cover routing protocols like RIP, IGRP, Novell IPX, and Access Control Lists (ACLs).

Wide Area Telecommunications and Networking

Wide Area Telecommunications and Networking courses provide students with the knowledge and skills to enable them to design Wide Area Networks (WANs) using ISDN, Frame-Relay, and PPP. Students gain knowledge and skills in network management and maintenance and develop expertise in trouble-shooting and assessing the adequacy of network configuration to meet changing conditions.

Wireless Networks

Wireless Networks courses focus on the design, planning, implementation, operation, and trouble-shooting of wireless computer networks. These courses typically include a comprehensive overview of best practices in technology, security, and design, with particular emphasis on hands-on skills in (1) wireless LAN set-up and trouble-shooting; (2) 802.11a & 802.11b technologies, products, and solutions; (3) site surveys; (4) resilient WLAN design, installation, and configuration; (5) vendor interoperability strategies; and (6) wireless bridging.

Network Security

Network Security courses teach students how to design and implement security measures in order to reduce the risk of data vulnerability and loss. Course content usually includes typical security policies; firewall design, installation, and management; secure router design, configuration, and maintenance; and security-specific technologies, products, and solutions.

Essentials of Network Operating Systems
Essentials of Network Operating Systems courses provide a study of multi-user, multi-tasking network operating systems. In these courses, students learn the characteristics of the Linux, Windows 2000, NT, and XP network operating systems and explore a variety of topics including installation procedures, security issues, back-up procedures, and remote access.

10110A000  Microsoft Certified Professional (MCP)
Microsoft Certified Professional courses provide students with the knowledge and skills necessary to be employed as a network administrator in the latest Windows server-networking environment. Topics include installing, configuring, and trouble-shooting the Windows server. These courses prepare students to set up network connections; manage security issues and shares; and develop policies. Students are typically encouraged to take the MCP exam.

10111A000  Particular Topics in Networking Systems
These courses examine particular topics in networking systems other than those already described.


10147A000 Networking Systems—Independent Study
Networking Systems—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to networking systems. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10148A000 Networking Systems—Workplace Experience
Networking Systems—Workplace Experience courses provide students with work experience in fields related to networking systems. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10149A000 Networking Systems—Other
Other Networking Systems courses.

10151A000 Business Programming
Business Programming courses provide students with experience in using previously written software packages as well as designing and writing programs of their own. The word-processing, spreadsheet, graphics, and database exercises in these courses contain a business industry focus, and the original programs are written in languages typical of this industry (Visual Basic (VB), C++, Java, BASIC, COBOL, and/or RPL).

10152A000 Computer Programming
Computer Programming courses provide students with the knowledge and skills necessary to construct computer programs in one or more languages. Computer coding and program structure are often introduced with the BASIC language, but other computer languages, such as Visual Basic (VB), Java, Pascal, C++, and COBOL, may be used instead. Initially, students learn to structure, create, document, and debug computer programs, and as they progress, more emphasis is placed on design, style, clarity, and efficiency. Students may apply the skills they learn to relevant applications such as modeling, data management, graphics, and text-processing.

10152A001 Computer Operations and Programming I CTE Course
Computer Operations and Programming I is the first of two skill-level courses designed to develop computer programming and program design skills through the use of various programming languages such as Visual Basic, C#, Java, and other object-oriented languages. Students will be exposed to the fundamentals of system analysis and design (e.g. flowcharting, diagramming, system design and planning), and the systems development life cycle. Instruction will include basic programming tools that are common to many programming languages. These may include items such as input/output statements, constants, assignment statements, string and numeric variable types, conditional processing, and branching and looping control structures. Students will learn programming techniques such as counting, averaging, rounding, and generation of random numbers to develop a good programming technique. Students will apply what they learn to create programs and applications that solve real world business related problems. Students will create programs to store, locate and retrieve data.

10152A002 Computer Operations and Programming II CTE Course
Computer Operations and Programming II is a skill-level course for students who have completed Computer Operations and Programming I. Students will use procedural and object-oriented programming languages such as Visual Basic, C# and Java. Students will learn programming concepts such as inheritance and polymorphism, advanced data handling (pointers, arrays, strings, and files), and common algorithms (recursion, searching and sorting). Students will be able to write, compile, run, test, debug and modify programs and applications that solve real world problems. Problem examples may include tracking inventory, scheduling rooms and facilities, accessing information and performing calculations.

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Visual Basic (VB) Programming

Visual Basic (VB) Programming courses provide an opportunity for students to gain expertise in computer programs using the Visual Basic (VB) language. As with more general computer programming courses, the emphasis is on how to structure and document computer programs and how to use problem-solving techniques. These courses cover such topics as the use of text boxes, scroll bars, menus, buttons, and Windows applications. More advanced topics may include mathematical and business functions and graphics.

C++ Programming

C++ Programming courses provide an opportunity for students to gain expertise in computer programs using the C++ language. As with more general computer programming courses, the emphasis is on how to write logically structured programs, include appropriate documentation, and use problem-solving techniques. More advanced topics may include multi-dimensional arrays, functions, and records.
10155A000  Java Programming
Java Programming courses provide students with the opportunity to gain expertise in computer programs using the Java language. As with more general computer programming courses, the emphasis is on how to structure and document computer programs, using problem-solving techniques. Topics covered in the course include syntax, I/O classes, string manipulation, and recursion.

10156A000  Computer Programming—Other Language
Computer Programming—Other Language courses provide students with the opportunity to gain expertise in computer programs using languages other than those specified (such as Pascal, FORTRAN, or emerging languages). As with other computer programming courses, the emphasis is on how to structure and document computer programs, using problem-solving techniques. As students advance, they learn to capitalize on the features and strengths of the language being used.

10157A000  AP Computer Science A
Following the College Board’s suggested curriculum designed to mirror college-level computer science courses, AP Computer Science A courses provide students with the logical, mathematical, and problem-solving skills needed to design structured, well-documented computer programs that provide solutions to real-world problems. These courses cover such topics as programming methodology, features, and procedures; algorithms; data structures; computer systems; and programmer responsibilities.

10158A000  AP Computer Science AB
Following the College Board’s suggested curriculum designed to mirror college-level computer science courses, AP Computer Science AB courses (in addition to covering topics included in AP Computer Science A) provide a more formal and extensive study of program design, algorithms, data structures, and execution costs.

10159A000  IB Computing Studies
IB Computer Studies courses prepare students to take the International Baccalaureate Computing Studies exam at either the Subsidiary or Higher level. The courses emphasize problem analysis, efficient use of data structures and manipulation procedures, and logical decision-making. IB Computing Studies courses also cover the applications and effects of the computer on modern society as well as the limitations of computer technology.

10160A000  Particular Topics in Computer Programming
These courses examine particular topics in computer programming other than those already described.

10197A000  Computer Programming—Independent Study
Computer Programming—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to computer programming. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10198A000  Computer Programming—Workplace Experience
Computer Programming—Workplace Experience courses provide students with work experience in fields related to computer programming. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10199A000  Computer Programming—Other
Other Computer Programming courses.
10201A000    Web Page Design
Web Page Design courses teach students how to design web sites by introducing them to and refining their knowledge of site planning, page layout, graphic design, and the use of markup languages—such as Extensible Hypertext Markup, JavaScript, Dynamic HTML, and Document Object Model—to develop and maintain a web page. These courses may also cover security and privacy issues, copyright infringement, trademarks, and other legal issues relating to the use of the Internet. Advanced topics may include the use of forms and scripts for database access, transfer methods, and networking fundamentals.
10201A001 Web Page and Interactive Media Development I CTE Course
Web Page and Interactive Media Development I is a skill-level course designed to prepare students to plan, design, create and maintain web pages and sites. Students will learn the fundamentals of web page design using HTML, HTML editors, and graphic editors as well as programming tools such as JavaScript. Students will work in a project-based environment to create a working website. Students will learn to create pages, add hyperlinks, make tables and frames, create forms, integrate images, and set styles. Students will use image-editing programs to manipulate scanned images, computer graphics, and original artwork. Instruction will include creating graphical headers, interactive menus and buttons, and visually appealing backgrounds. Students will use hardware and software to capture, edit, create, and compress audio and video clips.

10201A002 Web Page and Interactive Media Development II CTE Course
Web Page and Interactive Media Development II is a skill-level course for students who have completed Web Page and Interactive Media Development I. Instruction will include using multimedia authoring applications and programming tools such as JavaScript to create a web site that combines text, hyperlinks, images, video, and sound. Instruction will include using hardware and software to capture, edit, create, and compress audio and video clips as well as create animated text, graphics, and images. Other topics will include using tables to align images with text, creating newspaper-style columns, and inserting side menus and call-outs. Students will learn how to use templates, cascading style sheets and interactive elements to enhance web pages. Students will learn to create dynamic forms that include multiple-choice questions, comment boxes, and buttons. Students will learn how to connect to a database and retrieve and write data. Students are encouraged to develop a portfolio project that demonstrates their expertise in areas such as multimedia authoring, web development, audio and video editing, and advanced JavaScript applications to create interactive web pages.

10202A000 Computer Graphics
Computer Graphics courses provide students with the opportunity to explore the capability of the computer to produce visual imagery and to apply graphic techniques to various fields, such as advertising, TV/video, and architecture. Typical course topics include modeling, simulation, animation, and image retouching.

10202A001 Digital Graphics CTE Course
Digital Graphics course provides students with the opportunity to use the computer to produce visual imagery and to apply graphic techniques to various fields, such as advertising, TV/video, and architecture. Course topics include modeling, simulation, animation, and image retouching.

10203A000 Interactive Media
Interactive Media courses provide students with the knowledge and skills to create, design, and produce interactive media products and services. The courses may emphasize the development of digitally generated and/or computer-enhanced media. Course topics may include 3D animation, graphic media, web development, and virtual reality. Upon completion of these courses, students may be prepared for industry certification.

10204A000 Particular Topics in Media Technology
These courses examine particular topics in internet design and applications other than those already described.

10247A000 Media Technology—Independent Study
Media Technology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to media technology. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10248A000 Media Technology—Workplace Experience
Media Technology—Workplace Experience courses provide students with work experience in fields related to media technology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10249A000  Media Technology—Other
Other Media Technology courses.

10251A000  Computer Technology
Computer Technology courses introduce students to the features, functions, and design of computer hardware and provide instruction in the maintenance and repair of computer components and peripheral devices.
Computer Maintenance courses prepare students to apply basic electronic theory and principles in diagnosing and repairing personal computers and input/output devices. Topics may include operating, installing, maintaining, and repairing computers, network systems, digital control instruments, programmable controllers, and related robotics.

**10252A001 Computer Maintenance I CTE Course**
This course is designed to provide students with the skills needed to install, setup, configure, test, troubleshoot, and maintain, personal computers and peripherals. Instruction includes assembling, maintaining, and upgrading personal computers. Students learn how to install, upgrade, and troubleshoot various hardware components such as motherboards, hard drives, CD-ROMS, memory, power supplies, video cards, sound cards, and network cards. Students install and configure various desktop operating systems such as Windows, Apple, and Linux. The course includes adding and removing software programs, installing and updating system drivers, creating startup and recovery disk, and updating the BIOS and CMOS. Students learn to conduct preventive maintenance and perform system backups, data transfer, and recovery routines as well as use diagnostic utilities to troubleshoot hardware and software problems. Students also learn how to disassemble, clean, troubleshoot, and reassemble peripherals such as printers.

**10252A002 Computer Maintenance II CTE Course**
This course builds on the skills introduced in Computer Maintenance I. Students learn how to connect and install multiple computers and peripherals together to create a computer network. Students build, configure, and maintain network servers along with installing and configuring various network operating systems such as Novell, Windows, and Linux. Students learn to use troubleshooting services, system monitoring utilities, and data backup and recovery systems. Other topics include learning how to connect various network components such as servers, computers, and printers together using data cabling, hubs, and switches. Students learn to run, terminate, and troubleshoot data cabling. In addition, students learn how to install and upgrade software across the network, as well as map drives and share resources such as printers software, and files. The course includes setting up and configuring various network services such as TCP/IP, DHCP, DNS, VPN, terminal services, e-mail, and web services. Students learn how to secure and protect network servers and data as well as setting up and configuring a firewall, intrusion detection system, and encryption software for identifying and preventing potential network attacks.

**10253A000 Information Support and Services**
Information Support and Services courses prepare students to assist users of personal computers by diagnosing their problems in using application software packages and maintaining security requirements.

**10254A000 IT Essentials: PC Hardware and Software**
IT Essentials: PC Hardware and Software courses provide students with in-depth exposure to computer hardware and operating systems. Course topics include the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Students learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, these courses introduce students to networking and often prepare them for industry certification.

**10255A000 CISCO—The Panduit Network Infrastructure Essentials (PNIE)**
CISCO—PNIE courses provide students with the knowledge to create innovative network infrastructure solutions. These courses offer students basic cable installer information and help them acquire the skills to build and use the physical layer of network infrastructure and develop a deeper understanding of networking devices.

**10256A000 Particular Topics in Information Support and Services**
These courses examine particular topics in computer support, maintenance, and repair other than those already described.
10297A000  Information Support and Services—Independent Study
Information Support and Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to computer information support and services. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10298A000  Information Support and Services—Workplace Experience
Information Support and Services—Workplace Experience courses provide students with work experience in fields related to information support and/or service. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.
10299A000  Information Support and Services—Other
Other Information Support and Services courses.

10995A000  Computer and Information Sciences—Aide
Computer and Information Sciences—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

10997A000  Computer and Information Sciences—Independent Study
Computer and Information Sciences—Independent Study courses, often conducted with instructors as mentors, enable students to explore computer-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

10998A000  Computer and Information Sciences—Workplace Experience
Computer and Information Sciences—Workplace Experience courses provide students with work experience in fields related to computer and/or information sciences. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

10999A000  Computer and Information Sciences—Other
Other Computer and Information Sciences courses.
11 Communication and Audio/Visual

11001A000 Introduction to Communication
Introduction to Communication courses enable students to understand and critically evaluate the role of media in society. Course content typically includes investigation of visual images, printed material, and audio segments as tools of information, entertainment, and propaganda; improvement of presentation and evaluative skills in relation to mass media; recognition of various techniques for delivery of a particular message; and, in some cases, creation of a media product. The course may concentrate on a particular medium.

11002A000 Communication Technology
Communication Technology courses enable students to effectively communicate ideas and information through experiences dealing with drafting, design, electronic communication, graphic arts, printing process, photography, telecommunications, and computers. Additional topics covered in the course include information storage and retrieval. Drafting equipment may be used to make scale drawings, including multi-view drawing, photographs, and poster mock-ups.

11002A001 Communication Technology CTE Course
Communication Technology is a course designed to foster an awareness and understanding of the technologies used to communicate in our modern society. Students gain experience in the areas of design and drafting, radio and television broadcasting, computers in communication, photography, graphic arts, and telecommunications.

11003A000 Particular Topics in Communication
These courses examine specific topics in communication other than those already described.

11047A000 Communication—Independent Study
Communication—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to mass communications. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

11048A000 Communication—Workplace Experience
Communication—Workplace Experience courses provide students with work experience in a field related to communication. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

11049A000 Communication—Other
Other Communication courses.

11051A000 Audio/Visual Production
Audio/Visual Production courses provide students with the knowledge and skills necessary for television, video, film, and/or radio production. Writing scripts, camera operation, use of graphics and other visuals, lighting, audio techniques, editing, production principles, and career opportunities are typical topics covered within production courses. Students are usually required to produce their own program or segment. Additional topics such as broadcast industry regulations, radio/TV operation, power of the medium, photography, transmission technology, and so on may be included.
11051A001 Audio/Video Production I CTE Course
This course is designed to provide students with the skills needed for a career in the technical aspects of radio and television broadcasting. Instruction includes camera operations, basic audio and video editing, sound and lighting techniques, and sound mixing. Students learn the operation, maintenance, and repair of video and DVD recording equipment, video/digital cameras, microphones, computers, lighting/grip equipment, and other production equipment used in the video and audio production of television programs. Students also learn to use, maintain, and repair various types of audio recorders, amplifiers, transmitters, receivers, microphones, and sound mixers to record and broadcast radio programs.

11051A002 Audio/Video Production II CTE Course
This course is for students who have completed Audio/Video Production I. In addition to expanding on the activities explored in the first course, students work in a team-based environment to create a variety of video and audio related broadcasts. Instruction includes single and multi camera operations, linear and nonlinear video editing, production and post-production processes, animation graphics, sound mixing, multi-track production, audio editing, and special effects. Students learn how to use digital editing equipment and software to electronically cut and paste video and sound segments together, as well as how to regulate and monitor signal strength, volume, sound quality, brightness, and clarity of outgoing signals. This course also provides students with an understanding of the FCC and other governmental agencies regulations related to radio and television broadcasting.

11052A000 Commercial Photography
Commercial Photography courses provide instruction in the use of cameras and laboratory film-processing techniques. Topics covered in the course include composition and color dynamics; contact printing; enlarging; developing film; use of camera meters, air brushes, and other photographic equipment; portrait, commercial, and industrial photography; processing microfilm; and preparing copy for printing or for graphic-arts processing.

11052A001 Commercial Photography I CTE Course
This course provides students with experiences related to the photography field. Planned experiences give students a clear and concise introduction in the following areas: safety and proper housekeeping of the photo studio, photography of visual and communicative discipline, constructing a usable cardboard camera and develop printing, learning basic terms, understanding how film/paper work, proper exposure, working in the darkroom and knowing all necessary darkroom activities, safe use of photo chemicals, using dyes, and mounting and matting a completed photographic image. In addition, students are introduced to photographic terms, using light meters to measure natural and artificial lighting, using various lighting sources, manipulating basic backgrounds with different light sources, conducting shop operations, performing camera work, processing film and performing darkroom work on black and white and color film, printing photographic images, purchasing equipment and supplies, and the selection and use of cameras, film, lenses, accessories, tripods and filters.

11052A002 Commercial Photography II CTE Course
This course provides learning experiences related to the tools, materials, processes and practices utilized in the photography industry. Instruction includes arranging photography sessions, selecting and using cameras, film, lenses, and accessories, calculating and setting shutter speed, preparing darkroom equipment, mixing chemicals, processing film both black and white and color, printing photographic images such as enlargements, sandwich negatives, and copying slides. In addition, Commercial Photography II provides students with a better understanding of photographic images and their application in design. Students shoot photographs specifically for design layouts and in the process develop a better visual language, enhancing photo selection and editing skills. Students learn to visualize not only the look of the design, but also the structure and form of the photographs they shoot.

11052A003 Beginning Photography CTE Course
Beginning Photography course provides instruction in the use of conventional and digital cameras and laboratory film processing techniques. Topics covered in the course include composition and color dynamics; contact printing; enlarging; developing film and use of camera meters.
Photographic Laboratory and Darkroom

Photographic Laboratory and Darkroom courses prepare students to develop and print still or motion picture film. Topics covered in the course may include controlling resultant prints; touching up negatives; and finishing, coloring, restoring, and copying prints.

Photo Imaging

Photo Imaging courses provide students with the opportunity to effectively communicate ideas and information via digital, film, still and video photography. Topics covered typically include composition, layout, lighting and supplies. More advanced courses may include instruction in specialized camera and equipment maintenance, application to commercial and industrial need and photography business operations.

Video

Video courses enable students to explore video communications, incorporating both the technical and artistic aspects of video media. Topics covered in the course include the use of video equipment and techniques, and students typically create a video presentation. Advanced course topics may include creating various forms of film media including silent film; sport and music video; and self portrait video.

Particular Topics in Audio/Video Technology and Film

These courses examine specific topics in audio and video technology and film other than those already described.

Audio/Video Technology and Film—Independent Study

Audio/Video Technology and Film—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to A/V technology or film. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Audio/Video Technology and Film—Workplace Experience

Audio/Video Technology and Film—Workplace Experience courses provide students with work experience in a field related to audio/visual technology and/or film. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Audio/Video Technology and Film—Other

Other Audio/Video Technology and Film courses.

Journalism

Journalism courses (typically associated with the production of a school newspaper, yearbook, or literary magazine) emphasize writing style and technique as well as production values and organization. Journalism courses introduce students to the concepts of newsworthiness and press responsibility; develop students’ skills in writing and editing stories, headlines, and captions; and teach students the principles of production design, layout, and printing. Photography and photojournalism skills may be included.

Photojournalism

Photojournalism courses expose students to the manner in which photography is used to convey information and experiences. Typically coordinated with production of the school newspaper, yearbook, or other media product, photojournalism courses provide students with the opportunity to improve their photo composition and film development skills, and to apply their art to journalistic endeavors.
11103A000 Broadcasting Technology
Broadcasting Technology courses provide students with the knowledge and skills to produce television broadcast programs. Typically, students prepare and produce short programs, learning the technical aspects of the operation and how to evaluate programming and assess audience reaction and impact.

11104A000 Publication Production
Publication Production courses provide students with the knowledge and skills necessary to produce the school newspaper, yearbook, literary magazine, or other printed publication. Students may gain experience in several components (writing, editing, layout, production, and so on) or may focus on a single aspect while producing the publication.

11105A000 Particular Topics in Journalism and Broadcasting
These courses examine specific topics in journalism and broadcasting other than those already described.

11147A000 Journalism and Broadcasting—Independent Study
Journalism and Broadcasting—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to journalism, broadcasting, and mass media. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

11148A000 Journalism and Broadcasting—Workplace Experience
Journalism and Broadcasting—Workplace Experience courses provide students with work experience in a field related to journalism or broadcasting. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

11149A000 Journalism and Broadcasting—Other
Other Journalism and Broadcasting courses.

11151A000 Digital Media Technology
These courses are designed to give students the skills necessary to support and enhance their learning about digital medial technology. Topics covered in the course may include internet research, copyright laws, web-publishing, use of digital imagery, electronic forums, newsgroups, mailing lists, presentation tools, and project planning.

11152A000 Desktop Publishing
Desktop Publishing courses integrate the knowledge and skills learning in word processing with the concepts, procedures and application of desktop publishing. Students learn to format, create and proofread brochures, programs, newsletters, web pages, presentations and manuscripts.

11153A000 Digital Media Design and Production
Digital Media Design and Production courses teach students the fundamentals of graphic design and production and provide students with the opportunity to apply these principles to printed media, digital presentation media, and interactive media.

11154A000 Commercial Graphic Design
Commercial Graphic Design courses teach students to use artistic techniques to effectively communicate ideas and information to business and customer audiences via illustration and other forms of digital or printed media. Topics covered may include concept design, layout, paste-up and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage and computer graphics.
11154A001 Graphic Communications I CTE Course
Graphic Communications I provides learning experiences common to all graphic communications occupations. Instruction should include use of color, balance and proportion in design; three-dimensional visualization; sketching; design procedures; layout; selection of type styles; selection of appropriate drawing tools and media; and the use of the computer as a communication tool. Planned learning activities will allow students to become knowledgeable of fundamental principles and methods and to develop technical skills related to the graphic arts industry.

11154A002 Graphic Communications II CTE Course
Graphic Communications II provides learning experiences related to the tools, materials, processes and practices utilized in the printing industry. Instruction is provided in industrial safety; stencil preparation and duplicating equipment operation; print screen preparation and printing; machine typesetting; ink and color preparation; assembly, binding, and trimming operations; layout, digital paste up and copy preparation. In addition the course provides the student with learning experiences in the use of cameras and photographic equipment, development and processing of photographic negatives and prints, negative stripping and related platemaking procedures, photocomposition, photoengraving, lithography, and offset presswork. Use of the computer in graphic arts occupations should be emphasized.

11155A000 Graphic Technology
Graphic Technology courses help students apply artistic and computer techniques to the interpretation of technical and commercial concepts. Topics covered may include computer assisted art and design, printmaking, concept sketching, technical drawing, color theory, imaging, studio techniques, still life modeling, and commercial art business operations. Advanced topics may include topographic arrangements of print and/or electronic graphic and textual products, printing and lithographic equipment and operations, digital imaging, print preparation, desktop publishing and web page design.

11155A001 Commercial & Advertising Art I CTE Course
This course is designed to provide students with the skills needed for a career in the fields of advertising, commercial art, graphic design, web site development, and graphic illustrator. Students learn to apply artistic design and layout principles along with text, graphics, drawing, rendering, sound, video, and 2D/3D animation integration to develop various print, video, and digital products. Students use hardware and software programs to create, manipulate, color, paint, and layer scanned images, computer graphics, and original artwork. Students use hardware and software to capture, edit, create, and compress audio and video clips. Students use animation and 2D/3D hardware and software to create animated text, graphics, and images. Students apply artistic techniques to design and create advertisements, displays, publications, technical illustrations, marketing brochures, logos, trademarks, packaging, video graphics, and computer-generated media.

11155A002 Commercial & Advertising Art II CTE Course
This course continues to build on the concepts and skills introduced in Commercial and Advertising Art I. In addition to expanding on the activities explored in Commercial and Advertising Art I, students work in a project-based environment to create a variety of interactive online and CD/DVD-based products such as web sites, catalogs, publications, marketing materials, presentations, and educational/training programs. Students create dynamic web pages and sites using HTML, HTML editors, and graphic editors. Students create graphic sketches, designs, and copy layouts for online content. Instruction includes how to determine size and arrangement of illustrative material and copy, select style and size of type, and arrange layout based upon available space. Students learn how to capture and edit images, sound, and video, and combine them with text and animation. Instruction includes client interviewing skills, product proposal development, and product presentation techniques. Students also learn how to create a product portfolio.

11156A000 Photography and Printing Technology
Photography and Printing Technology courses expose students to the tools, materials and processes involved in mass production of photography and printing. Types of printing covered in the course may include intaglio, relief,
planographic, screen processes printing, silk screening, serigraphy processes and thermograph. Additional topics may include the use of cameras, composition, imposition, presswork, and computer aided publishing.

11157A000 Photoengraving
Photoengraving courses teach students to photograph illustration and other copy that cannot be set in type, to develop negatives, and to prepare photosensitized metal plates for use in printing.

11158A000 Print Press Operations
These courses expose students to the necessary skills for operating a print press. Topics covered in this course include how to prepare, operate and maintain printing processes.

11159A000 Particular Topics in Printing Technology and Production
These courses examine specific topics in printing production, such as book binding or silk screen print making, other than those already described.

11197A000 Printing Technology—Independent Study
Printing Technology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to the print medium. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

11198A000 Printing Technology—Workplace Experience
Printing Technology—Workplace Experience courses provide students with work experience in a field related to printing. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

11199A000 Printing Technology—Other
Other Printing Technology courses.

11995A000 Communication and Audio/Video Technology—Aide
Communication and Audio/Video Technology—Aide courses offer students the opportunity to assist instructors in preparing, organizing or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

11997A000 Communication and Audio/Video Technology—Independent Study
Communication and Audio/Video Technology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to mass communication and its technologies. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

11998A000 Communication and Audio/Video Technology—Workplace
Communication and Audio/Video Technology—Workplace Experience courses provide students with work experience in a field related to communication or audio/visual technology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

11999A000 Communication and Audio/Video Technology—Other 1199
Other Communication and Audio/Video Technology courses.
12 Business and Marketing

12001A000 Business/Office Career Exploration
Business/Office Career Exploration courses expose students to the occupational opportunities available in the accounting, administration, data processing, management, and secretarial fields. Emphasis is placed on responsibilities, qualifications, work environment, and career paths. These courses may also include consumer education topics, keyboard exposure, and/or hands-on experience within the various occupational areas.

12001A001 Business and Technology Concepts CTE Course
This orientation-level course will provide an overview of all aspects of business marketing and management, including the concepts, functions, and skills required for meeting the challenges of operating a business in a global economy. Topics covered will include the various forms of business ownership, including entrepreneurship, as well as the basic functional areas of business (finance, management, marketing, administration and production). Students will be introduced to a wide range of careers in fields such as accounting, financial services, information technology, marketing, and management. Emphasis will be placed on using the computer while studying applications in these careers along with communication skills (thinking, listening, composing, revising, editing, and speaking), math and problem solving. Business ethics as well as other workplace skills will be taught and integrated within this course. This course is not intended to meet the consumer education requirement, but rather to provide preparation for the skill level courses that make up the Business, Marketing and Management occupations programs.

12002A000 Office Procedures—Comprehensive
Office Procedures—Comprehensive courses provide students with numerous opportunities to explore and understand the responsibilities and duties common to most office personnel. These comprehensive courses cover such topics as communication skills, reception and transmission of information via data processing equipment, filing and record management, mail handling, scheduling meetings and conferences, creating itineraries, and word processing.

12002A001 Business Technology and Procedures CTE Course
Business Technology and Procedures is a course that prepares students for entry level employment in a technology-based office setting. Integrated software applications will be included in this course. Instruction will focus on office etiquette, office management, telephone and communications procedures, time management, records management, and proper business behavior and attire. Students will perform clerical duties, create, edit and correct documents, records and files, perform information processing activities (e.g. spreadsheets, database entry, desktop publishing) and prepare documents using presentation software. Students will discuss appropriate procedures for receiving visitors, patients or clients, and organize, schedule and plan meetings. In addition, students will file materials manually and electronically, make travel arrangements, perform financial activities, process mail, transmit messages electronically, and maintain office supplies and equipment. Students will organize and plan office activities, compose and distribute meeting notes and reports, answer routine correspondence, input information from voice recordings; conduct research using the intranet and/or internet, and supervise and train other employees. Students will apply proper grammar, punctuation, spelling and proofreading skills. Accuracy will be emphasized. Students will apply new skills as well as skills learned in other courses to complete a series of realistic office assignments or participate in an office workbased learning experience. Workplace skills as well as communication skills (thinking, listening, composing, revising, editing, and speaking) will be taught and integrated throughout this course.

12003A000 Office and Administrative Technologies
Office and Administrative Technologies courses provide students with instruction and experience in developing technical, problem-solving, and decision-making skills essential for office and/or administrative occupations. Emphasis is placed on integrating and applying knowledge and skills to realistic office and administrative situations utilizing current and relevant technology.
12004A000  **Office Services**
Office Services courses introduce students to and help them refine clerical and receptionist skills. Course content typically covers filing, telephone, and keyboarding skills; reprographic machinery and procedures; communications skills; and so on.

12005A000  **Keyboarding**
Keyboarding courses provide students with an introduction to the keyboard (letters, numbers, and symbols), basic machine operation, and proper keystroke technique. As students progress, they improve their speed and accuracy and produce increasingly complex documents. Such courses help students develop keyboard proficiency, document production skills, and problem-solving skills.
12005A001 Keyboarding and Formatting CTE Course

Keyboarding and Formatting is a course designed to develop basic skills in touch keyboarding techniques for entering alphabetic, numeric, and symbol information found on computers and terminals. Students will learn to edit and format text and paragraphs, change fonts, work with headers and footers, cut and paste text, create and use tab keys, create labels, and work with multiple windows. Students will format documents such as letters, envelopes, memorandums, reports, and tables for personal, educational, and business uses. During the second half of the course, major emphasis is placed on formatting documents, improving proofreading skills, and increasing speed and accuracy.

12006A000 Word Processing

Word Processing courses introduce students to automated document production using one or more software packages. These courses may introduce keyboarding techniques or may require prior experience; in either case, speed and accuracy are emphasized. A parallel focus is placed on the use of software commands and functions to create, edit, format, and manipulate documents, capitalizing on the power offered by word processing software programs. These courses may also cover file and disk management and other computer-related skills.

12007A000 Recordkeeping

Recordkeeping courses help students to develop knowledge and skills related to the principles and procedures involved in recording personal financial transactions as well as transactions typically undertaken by small businesses. Partial emphasis may be placed on personal banking, budgeting, and income tax calculations; additional emphasis is usually placed on cashier and clerk procedures, inventory control for small businesses, database management, merchandising, and payroll.

12007A001 Recordkeeping CTE Course

Develops understanding of and skill in maintaining accurate records; includes skills used in everyday business activities both for personal and professional use; provides an opportunity to develop skills related to personal financial management as well as budgeting, financial planning, cashier’s records, handling of money, and tasks common to simple office practices.

12008A000 Particular Topics in Administration

These courses examine specific topics related to business administration not otherwise described, such as a focus on dictation or office machinery, rather than provide a general study of office administration principles and techniques.

12009A000 Business Communications

Business Communications courses help students to develop an understanding and appreciation for effective communication in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communicating nonverbally, and utilizing technology for communication. Business communication functions, processes, and applications in the context of business may be practiced through problem-based projects and real-world application.

12047A000 Administration—Independent Study

Administration—Independent Study courses, often conducted with instructors as mentors, enable students to explore business administration-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

12048A000 Administration—Workplace Experience

Administration—Workplace Experience courses provide students with work experience in fields related to business
administration. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

12049A000 Administration—Other
Other Administration courses.

12051A000 Introductory Business
Introductory Business courses survey an array of topics and concepts related to the field of business. These courses introduce business concepts such as banking and finance, the role of government in business, consumerism, credit, investment, and management. They usually provide a brief overview of the American economic system and corporate organization. Introductory Business courses may also expose students to the varied opportunities in secretarial, accounting, management, and related fields.
12052A000 Business Management
Business Management courses acquaint students with management opportunities and effective human relations. These courses provide students with the skills to perform planning, staffing, financing, and controlling functions within a business. In addition, they usually provide a macro-level study of the business world, including business structure and finance, and the interconnections among industry, government, and the global economy. The course may also emphasize problem-based, real-world applications of business concepts and use accounting concepts to formulate, analyze, and evaluate business decisions.

12053A000 Entrepreneurship
Entrepreneurship courses acquaint students with the knowledge and skills necessary to own and operate their own businesses. Topics from several fields typically form the course content: economics, marketing principles, human relations and psychology, business and labor law, legal rights and responsibilities of ownership, business and financial planning, finance and accounting, and communication. Several topics surveyed in Business Management courses may also be included.

12053A001 Entrepreneurship CTE Course
Entrepreneurship courses acquaint students with the knowledge and skills necessary to own and operate their own businesses. Topics from several fields typically form the course content: economics, marketing principles, human relations and psychology, business and labor law, legal rights and responsibilities of ownership, business and financial planning, finance and accounting, and communication. Several topics surveyed in Business Management courses may also be included.

12054A000 Business Law
Business Law courses emphasize legal concepts that are relevant to business and business organizations. Topics examined in these courses typically include contracts, buying/renting property, installment buying, insurance, buyer/seller relationships, negotiable instruments, employment, taxes, insurance, commercial papers, legal organizational structures, and consumer liabilities.

12054A001 Business Law CTE Course
Introduces law and the origins and necessity of the legal system; provides insight into the evolution and development of laws that govern business in our society; develops an understanding of how organization and operation of the legal system impact business; develops an understanding of rights and duties within the business environment; and includes contractual responsibility, protection of individual rights in legal relationships relative to warranties, product liability, secured and unsecured debts, negotiable instruments, agencies, employer-employee relations, property ownership and transfer, landlord and tenant, wills and estates, community property, social security, and taxation.

12055A000 Business Principles and Management
Business Principles and Management courses are designed to provide students with an understanding of the American business system, its organizations, and its management. These courses examine the various leadership and management styles of a variety of successful business organizations, large or small.

12055A001 Service-Oriented Marketing CTE Course
This course explores the basic principles of marketing such as the creation of concepts, strategies, and the development of marketing plans. Students learn about the components of the marketing mix, target marketing, sponsorship, event marketing, promotions, proposals, and execution of planning. This course emphasizes strong decision making, critical thinking, and collaborative skills to complete group marketing projects throughout the semester. Marketing introduces students to this exciting field, which includes advertising, consumer research, product development, packaging, and selling. Students will be challenged to create new marketing ideas as they analyze current marketing trends. Students will also explore the legal aspects of these industries. Real life projects.
allow students to demonstrate their understanding of these areas. This course will examine the impact of marketing in our everyday lives, as well as teach many critical business concepts to ready students for a career in the area of marketing.

12056A000 International Business and Marketing
International Business and Marketing courses examine business management and administration in a global economy. Topics covered in this course typically include the principles and processes of export sales, trade controls, foreign operations and related problems, monetary issues, international business and policy, and applications of doing business in specific countries and markets.

12057A000 Human Resources and Labor Relations
Human Resources and Labor Relations courses analyze the functions of conflict resolution and collective bargaining. Typically, students examine the history of the labor movement within the United States, the relationship between management and labor, and how organized labor currently operates.
12058A000  Human Resources Management
Human Resources Management courses provide students with an understanding of the effective use of interpersonal skills in achieving the goals of an organization.

12059A000  IB Business and Management
IB Business and Management courses prepare students to take the International Baccalaureate Business and Management exam at either the Subsidiary or Higher level. In keeping with Individual and Society courses, IB Business and Management promotes problem-solving by identifying the problem, selecting and interpreting data, applying appropriate analytical tools, and recommending solutions by evaluating their quantitative and qualitative implications. These courses also equip students with knowledge and understanding of business terminology, concepts and principles.

12097A000  Management—Independent Study
Management—Independent Study courses, often conducted with instructors as mentors, enable students to explore business management-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

12098A000  Management—Workplace Experience
Management—Workplace Experience courses provide students with work experience in fields related to business management. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

12099A000  Management—Other
Other Management courses.

12101A000  Banking and Finance
Banking and Finance courses provide students with an overview of the American monetary and banking system as well as types of financial institutions and the services and products that they offer. Course content may include government regulations; checking, savings, and money market accounts; loans; investments; and negotiable instruments.

12102A000  Banking
Banking courses are similar to Banking and Finance courses, but they focus specifically on banking. These courses may also address examining and applying the methods used for measuring the financial performance of banks in addition to examining specialized brokerage products, current issues, and future trends in banking.

12103A000  Finance
Finance courses are similar to Banking and Finance courses, but they focus specifically on finance, addressing how businesses raise, distribute, and use financial resources while managing risk. Course content typically involves modeling financial decisions (such as borrowing, selling equity or stock, lending or investing) typically undertaken by businesses.

12104A000  Accounting
Accounting courses introduce and expand upon the fundamental accounting principles and procedures used in businesses. Course content typically includes the full accounting cycle, payroll, taxes, debts, depreciation, ledger and journal techniques, and periodic adjustments. Students may learn how to apply standard auditing principles and to
prepare budgets and final reports. Calculators, electronic spreadsheets, or other automated tools are usually used. Advanced topics may include elementary principles of partnership and corporate accounting and the managerial uses of control systems and the accounting process.

12104A001 Accounting I

Accounting I is a course assists students pursuing a career in business, marketing, and management. This course includes planned learning experiences that develop initial and basic skills used in systematically computing, classifying, recording, verifying and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Instruction includes information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to provide assistance to management for decision making. Accounting computer applications should be integrated throughout the course where applicable. In addition to stressing basic fundamentals and terminology of accounting, instruction should provide initial understanding of the preparation of budgets and financial reports, operation of related business machines and equipment, and career opportunities in the accounting field. Processing employee benefits may also be included.
12104A002  Accounting II

Accounting II is a course that builds upon the foundation established in Accounting I. This course is planned to help students to develop deeper knowledge of the principles of accounting with more emphasis being placed on financial statements and accounting records. It is a study of previously learned principles as they apply to the more complicated types of business organizations: partnerships, corporations, branches, etc. The students may become familiar with such specialized fields of accounting as cost accounting, tax accounting, payroll accounting, and others. Some students may choose to do specialized accounting computer applications, and others may elect payroll clerk, data processing computer applications. Simulated business conditions may be provided through the use of practice sets. Skills are developed in the entry, retrieval, and statistical analysis of business data using computers for accounting business applications.

12105A000  Business Economics

Business Economics courses integrate economic principles (such as free market economy, consumerism, and the role of American government within the economic system) with entrepreneurship/business concepts (such as marketing principles, business law, and risk).

12106A000  Risk Management and Insurance

Risk Management and Insurance courses analyze risk management techniques from the viewpoints of those employed in the industry as well as of business owners seeking to meet risk management needs. Insurance products are evaluated in relation to cost and effectiveness.

12107A000  Investing

Investing courses emphasize the formulation of business and individual investment decisions by comparing and contrasting the investment qualities of cash, stock, bonds, and mutual funds. Students typically review annual reports, predict growth rates, and analyze trends. Stock market simulations are often incorporated into Investing courses.

12147A000  Finance—Independent Study

Finance—Independent Study courses, often conducted with instructors as mentors, enable students to explore business finance-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

12148A000  Finance—Workplace Experience

Finance—Workplace Experience courses provide students with work experience in fields related to finance. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

12149A000  Finance—Other

Other Finances courses.

12151A000  Marketing Career Exploration

Geared for students with an interest in marketing, sales, or small business operation, Marketing Career Exploration courses expose students to the opportunities available in retail, wholesale, advertising, and other occupational fields using marketing principles.

12152A000  Marketing—Comprehensive
Marketing—Comprehensive courses focus on the wide range of factors that influence the flow of goods and services from the producer to the consumer. Topics may include (but are not limited to) market research, the purchasing process, distribution systems, warehouse and inventory control, salesmanship, sales promotions, shoplifting and theft control, business management, and entrepreneurship. Human relations, computers, and economics are often covered as well.

12152A001 Advanced Marketing CTE Course
Marketing—Comprehensive courses focus on the wide range of factors that influence the flow of goods and services from the producer to the consumer. Topics may include (but are not limited to) market research, the purchasing process, distribution systems, warehouse and inventory control, salesmanship, sales promotions, shoplifting and theft control, business management, and entrepreneurship. Human relations, computers, and economics are often covered as well.
Marketing—Fashion courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management and entrepreneurship, and so on) but do so with particular attention to the fashion industry. In keeping with the focus on the fashion industry, course topics may also include fashion cycles, fashion history, design, style, and coordination.

**Fashion Merchandising CTE Course**
Fashion Merchandising focuses on the application of research techniques to understand the cultural, environmental, and psychological aspects of textile products as related to the customer needs. This course develops skills to research and apply knowledge of a product for the textile and design industry through hands-on, problem-based learning experiences and projects. Topics include: product knowledge and promotion; industry trends and style; industry specific terminology; marketing campaigns; current technology; and visual merchandising displays. Emphasis is placed on the development of a variety of communication techniques necessary in the promotion of products and the formation of client relationships.

Marketing—Real Estate courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing, advertising, sales, human relations, management and entrepreneurship, and so on) but do so with particular attention to the real estate industry. In keeping with the focus on real estate, course topics may also include financing, investment, ownership rights, ethics, and other real estate principles.

Marketing—Transportation courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on) but do so with particular attention to the transportation industry. In keeping with the focus on this industry, topics include identification and proper use of auto parts and accessories and the sales and service of new and used cars, vans, trucks, and related parts.

Marketing—Food/Beverage Industry courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on) but do so with particular attention to the food and beverage industry. In keeping with the focus on this industry, topics include the unique characteristics and functions of the food and beverage service industry.

Marketing—Insurance courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on) but do so with particular attention to the sale or underwriting of accident, health, life, marine, automobile, and causality insurance.

Marketing—Floristry courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on) but do so with particular attention to the floristry industry. In keeping with the focus on this field, topics include the unique characteristics and functions of retail and wholesale floral operations.

Marketing—Hospitality/Tourism courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on)
on) but do so with particular attention to the travel, tourism, and lodging industry. In keeping with the focus on this field, topics include the unique characteristics and functions of travel services and hotel/motel operations.

12160A000  Marketing—Merchandising
Marketing—Merchandising courses are designed to provide students with practical backgrounds in retailing, with emphasis on merchandising, promotion/display, selling, and career planning. The content of this course may also include fundamental principles of human relations.

12161A000  Retail Marketing
Retail Marketing courses cover marketing principles and concepts related to the provision of goods or services directly to the consumer, emphasizing store operation, advertisement and display of goods, store security, human relations, and business management and ownership.
12162A000  Internet Marketing
Internet Marketing covers the principles and functions of marketing from the standpoint of conducting business on the internet. Typically, students develop such skills as using the internet as a marketing tool, conducting a marketing analysis via the internet, planning marketing support activities, managing an electronic marketing campaign, managing/owning a business via the internet, and analyzing the impact of the internet on global marketing.

12163A000  Sports and Entertainment Marketing
Sports and Entertainment Marketing courses introduce students to and help them refine marketing and management functions and tasks that can be applied in amateur or professional sports or sporting events, entertainment or entertainment events, and the sales or rental of supplies and equipment.

12164A000  Principles of Marketing
Principles of Marketing courses offer students insight into the processes affecting the flow of goods and services from the producer to the consumer. Course content ranges considerably as general marketing principles such as purchasing, distribution, and sales are covered; however, a major emphasis is often placed on kinds of markets; market identification; product planning, packaging, and pricing; and business management.

12164A001  Product-Oriented Marketing  CTE Course
Principles of Marketing courses offer students insight into the processes affecting the flow of goods and services from the producer to the consumer. Course content ranges considerably as general marketing principles such as purchasing, distribution, and sales are covered; however, a major emphasis is often placed on kinds of markets; market identification; product planning, packaging, and pricing; and business management.

12165A000  Principles of Advertising
Principles of Advertising courses expose students to the varied concepts underlying the promotion of products. The topics included in Principles of Advertising courses range considerably, but typically include the psychology of advertising, a study of various media, advertising planning and budgeting, and advertising layout and design principles. Course topics may also include an overview of commercial art and packaging.

12166A000  Marketing Management
Marketing Management courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems; advertising and sales; and so on) but place a particular emphasis on business management and entrepreneurship, providing exposure to common techniques and problems of management.

12167A000  Marketing—Other Specialization
Marketing—Other Specialization courses typically cover the same scope of topics as Marketing—Comprehensive courses (purchasing and distribution systems, advertising, display and sales, management, entrepreneurship, and so on) but do so with attention to a particular industry not specified above. The course may also cover specific topics related to the particular industry being covered.

12169A000  Marketing—Independent Study
Marketing—Independent Study courses, often conducted with instructors as mentors, enable students to explore marketing-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

12170A000  Marketing—Workplace Experience
Marketing—Workplace Experience courses provide students with work experience in fields related to marketing. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily
paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

12199A000 Marketing—Other

Other Marketing courses.
Cashier/Checker Operations
Cashier/Checker Operations courses provide students with the knowledge and skills to operate a cash register and to handle numerous transactions. Topics typically include cash register procedures; handling cash, credit, checks, food stamps, and other forms of legal tender; human relations; stocking and marking merchandise; and theft prevention. Job search and employability skills are often an integral part of the course.

Principles of Selling
Principles of Selling courses provide students with the knowledge and opportunity to develop in-depth sales competencies. Course content typically includes types of selling, steps in a sale, sales strategies, and interpersonal skills and techniques.

Sales—Independent Study
Sales—Independent Study courses, often conducted with instructors as mentors, enable students to explore sales-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Sales—Workplace Experience
Sales—Workplace Experience courses provide students with work experience in fields related to sales. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Sales—Other
Other Sales courses.

Business and Marketing—Aide
Business and Marketing—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Business and Marketing—Independent Study
Business and Marketing—Independent Study courses, often conducted with instructors or professionals as mentors, enable students to explore business or marketing-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Business and Marketing—Workplace Experience
Business and Marketing—Workplace Experience courses provide students with work experience in fields related to business and marketing. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Business and Marketing—Other
Other Business and Marketing courses.
13 Manufacturing

13001A000 Exploration of Manufacturing Occupations
Exploration of Manufacturing Occupations courses introduce and expose students to the career opportunities pertaining to the processing and production of goods. Course topics vary and may include (but are not limited to) systems pertinent to the manufacturing process, properties of various raw materials, and the methods used to transform materials into consumer products. Course activities depend upon the careers being explored; course topics may include entrepreneurship, labor laws, and customer service.

13002A000 Manufacturing—Comprehensive
Manufacturing—Comprehensive courses introduce students to the various methods used to process and transform materials. Processing techniques covered usually include casting, forming, separating, assembling, and finishing. The courses may also include an overview of management techniques in planning, organizing, and controlling various segments of the manufacturing process, including design, engineering, production, and marketing.

13003A000 Industrial Arts
Industrial Arts courses expose students to the tools and machines that they may encounter in manufacturing-related occupations and enable them to develop the skills they need to use these tools in various applications. Course topics typically include (but are not limited to) drawing and planning, electricity, graphic arts, woodwork, leatherwork, metalwork, plastics, and power technology. These courses typically cover general safety and career exploration as well.

13004A000 Industrial Safety/First Aid
Industrial Safety/First Aid courses provide students with instruction in safe operating procedures related to various trades, as well as more general training in emergency first aid and CPR. Course topics may include the importance of standard operation procedures, agencies and regulations related to occupational safety and hazard prevention, and the dangers of particular materials.

13052A000 Material and Processes
Materials and Processes courses expose students to the tools, machines, and processes that may be encountered in manufacturing-related occupations. In particular, these courses stress the analysis, testing, and processing of metals, plastics, woods, ceramics, and composite materials.

13052A001 Production Technology
Production Technology is a course designed to foster an awareness and understanding of manufacturing and construction technology. Through a variety of learning activities, students are exposed to many career opportunities in the production field. Experiences in manufacturing include product design, materials and processes, tools and equipment including computers, safety procedures, corporate structure, management, research and development, production planning, mass production, marketing and servicing. In construction, students are exposed to site preparation, foundations, building structures, installing utilities, and finishing and servicing structures.

13053A000 Metal and Wood Processing/Production
Metal and Wood Processing/Production courses include studying the properties of metals, woods, and composites and using these materials to construct usable products. These courses enable students to experience the process of translating an idea into a finished product, with instruction in planning, designing, selecting materials, and using tools and machines.

13054A000 Wood Processing/Production
Wood Processing/Production courses include studying the properties of woods and composites made from woods and using these materials to construct usable products. These courses enable students to experience the process of translating an idea into a finished product, with instruction in planning, designing, selecting materials, and using tools and machines.

13055A000  Metal Processing/Production

Metal Processing/Production courses include studying the properties of metals and metal alloys and using these materials to construct usable products. These courses enable students to experience the process of translating an idea into a finished product, with instruction in planning, designing, selecting materials, and using tools and machines.
This course offers a planned sequence of learning experiences which provide students with the opportunities to develop competencies needed for employment in a variety of manufacturing-related occupations. This course introduces students to the skills common to many occupations, such as applying safety practices, selecting materials, performing bench work operations, performing precision measurement, performing layouts, performing housekeeping and recordkeeping activities, and operating a variety of tools used for separating, forming, and combining materials.

This course is a continuation of Precision Metal Production I and builds on the skills introduced in that course. This course begins to offer students the opportunity to specialize in specific areas of manufacturing such as machine tool set-up and operation, welding, quality control, automated machine set-up and operation, and sheet metal fabrication. Course content includes the following areas: metallurgy and heat treatment of metal, advanced machine set-up and operation, numerical control/computer, numerical control machining, performing supervisory functions and installation, and maintenance and repair of machinery.

Plastics Processing/Production courses include studying the properties of plastics and composites and using these materials to construct usable products. These courses enable students to experience the process of translating an idea into a finished product, with instruction in planning, designing, selecting materials, and using tools and machines.

Ceramic Processing/Production courses include studying the properties of ceramics and heat-resistant composites and using these materials to construct usable products. These courses enable students to experience the process of translating an idea into a finished product, with instruction in planning, designing, selecting materials, and using tools and machines.

These courses examine specific topics in processing and production, such as substance analysis, other than those already described.

Processing/Production—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to processing and production. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Processing/Production—Workplace Experience courses provide students with work experience in fields related to manufacturing processing and production. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other Processing/Production courses.

Production Systems courses provide students with knowledge and skills related to manufacturing technologies from
conception through production. Although courses vary, students typically analyze markets, design and develop prototypes, plan a marketing or sales strategy, manage a production plan, and manufacture useful products. These courses may also explore the evolution and impact of technology on society’s social, cultural, and economic systems and institutions.

13102A000  Electro-Mechanical Systems

Electro-Mechanical Systems courses provide students with instruction and experience in components and equipment that use electricity and the power of physical forces. Students gain an understanding of the principles of electricity and mechanics and their application to gears, cams, levers, circuits, and other devices used in the manufacturing process or within manufactured goods.
**13102A001 Mechatronics**

Electro-Mechanical Systems courses provide students with instruction and experience in components and equipment that use electricity and the power of physical forces. Students gain an understanding of the principles of electricity and mechanics and their application to gears, including hydraulic/pneumatic equipment, cams, levers, circuits, and other devices used in the manufacturing process or within manufactured goods.

**13103A000 Product Development**

Product Development courses provide students with the opportunity to focus on one or more areas of industrial technology, creatively pursuing new knowledge or solving a technological problem, by designing and building prototypes and working models. Students learn and apply appropriate information in order to complete a project.

**13147A000 Production Systems—Independent Study**

Production Systems—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to manufacturing systems and/or research. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

**13148A000 Production Systems—Workplace Experience**

Production Systems—Workplace Experience courses provide students with work experience in fields related to manufacturing systems and/or research. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**13149A000 Production Systems—Other**

Other Production Systems courses.

**13201A000 Metalwork Occupations**

Metalwork Occupations courses provide students with theoretical principles and laboratory experiences related to the planning, manufacturing, assembling, testing, and repairing of parts, mechanisms, and structures in which materials are cast, formed, treated, cut, fused, or otherwise processed in some fashion.

**13202A000 Metalworking**

Metalworking courses introduce students to the qualities and applications of various metals and the tools used to manipulate and form metal into products. Through one or more projects involving metals, students develop planning, layout, and measurement skills; gain experience in cutting, bending, forging, casting, and/or welding metal; complete projects according to blueprints or other specifications; and may also learn to polish and finish metals. Correct use of metalworking tools and equipment is stressed.

**13203A000 Machining**

Machining courses enable students to create metal parts using various machine tools and equipment. Course content may include interpreting specifications for machines using blueprints, sketches, or descriptions of parts; preparing and using lathes, milling machines, shapers, and grinders with skill, safety, and precision; developing part specifications; and selecting appropriate materials.

**13203A001 Machine Tool Technology/Machinist I** CTE Course

This course introduces students to the basic skills and machines needed in precision metal work. Students gain machining skills while working with lathes, milling machines, surface grinders, drill presses, and other equipment. In addition, students learn the basics of blueprint reading, precision measuring, layout, and machining process planning.
13203A002  Machine Tool Technology/Machinist II  CTE Course
This course provides more in-depth skill development in various types of precision tool operation, especially using mills, lathes, and surface grinders to perform machining tasks. Power cutoff saws and power band saws are also covered. Students also explore the use of computer and numerical controlled machining.

13203A005  Machine Shop Technology I  CTE Course
This course introduces students to the basic mechanical and technical skills common to most fields in the fabrication of metal parts in support of other manufacturing activities. Topics include shop safety, hand and power tool use, the operation and maintenance of precision metal working equipment, precision measurement, quality control, exploring the manufacturing process, instrumentation and blueprint reading.
13203A006 Machine Shop Technology II
CTE Course
This course builds on the skills and concepts introduced in Machine Shop Technology I. Additional skill-building activities include automated manufacturing, the use of end mills, surface grinders, drill presses, and basic welding procedures.

13204A000 Particular Topics in Machining
These courses examine specific topics related to machining, emphasizing a particular type of machine, tool, or procedure, or concentrating on a particular application of machining techniques.

13205A000 Sheet Metal
Sheet Metal courses expose students to the skills and information necessary to lay out, fabricate, assemble, install, maintain, and repair items and structures created from sheet metal components. Students learn the safe and efficient operation of various tools and typically gain skill in blueprint reading, welding, and finishing and polishing metals.

13205A001 Sheet Metal Technology I
CTE Course
This course is designed to introduce students to the Sheet Metal Worker occupation. Students are instructed in areas of safety including hand tool, power tool, ladder and scaffolding. Students are introduced to the planning, layout, and fabrication of sheet metal parts. Students gain knowledge of blueprint reading and sketching to determine sequence and methods of fabrication and assembly of products. In addition, units of instruction include the proper use and maintenance of hand and power tools, metal identification, measuring and layout, metal separating, forming machinery, and basic welding.

13205A002 Sheet Metal Technology II
CTE Course
This course is a continuation of and builds on the skills and concepts introduced in Sheet Metal Technology I. In this course students are introduced to precision measurement, power assisted sheet metal forming equipment, constructing ductwork, hand and power tools specifically designed for sheet metal fabrication, sheet metal production equipment, and advanced welding and brazing.

13206A000 Particular Topics in Sheet Metal
In these courses students gain knowledge and skills in particular aspects of sheet metal. Examples include individual courses in radial line development, triangulation fabrication, and so on.

13207A000 Welding
Welding courses enable students to gain knowledge of the properties, uses, and applications of various metals, skills in various processes used to join and cut metals (such as oxyacetylene, shielded metal, metal inert gas, and tungsten arc processes), and experience in identifying, selecting, and rating appropriate techniques. Welding courses often include instruction in interpreting blueprints or other types of specifications.

13207A001 Welding Technology I
CTE Course
This course assists students in gaining the knowledge and developing the basic skills needed to be successful in welding technology. Units of instruction include arc, TIG and MIG welding, metallurgy, cutting metal using arc, plasma, and oxy-gas. In addition, students learn the basics of blueprint reading, precision measuring, layout, and production process planning.

13207A002 Welding Technology II
CTE Course
This course builds on the skills and concepts introduced in Welding Technology I and provides more in-depth skill development in various types of welding including horizontal, vertical, overhead, and circular techniques. Students also explore the use of robotic and automated production welding.
13208A000  Particular Topics in Welding
In these courses students gain knowledge and skills in particular aspects of welding. Examples include individual courses in each of the following types of welding: gas metal, gas tungsten, and shielded metal and flux core arc welding.

13209A000  Particular Topics in Metalwork
In these courses students gain knowledge and skills in particular aspects of metalwork (such as foundry work or metallurgy) not otherwise described.
Metalwork—Independent Study courses, often conducted with instructors as mentors, enable students to explore metalwork-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Metalwork—Workplace Experience courses provide students with work experience in the welding, machine technologies, or metalwork fields. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other Metalwork courses.

Appliance Repair courses provide students with the knowledge and experience to repair, install, service, and inspect appliances such as stoves, refrigerators, washers, dryers, air conditioners, water heaters, and so on. Students gain an understanding of the mechanics and working systems of these appliances, the skills to read blueprints and specifications, and proficiency in using related tools and products.

Equipment Maintenance and Repair courses prepare students to adjust, maintain, replace, and repair parts of machinery and to repair tools, equipment, and machines. The courses may have a general emphasis or may focus on a specific type of machinery or equipment related to a particular industry. Depending upon the intent, course topics may include electric, hydraulic, or mechanic systems; control devices, valves, and gates; or supplemental equipment such as fans, hoses, and pipes.

Industrial Maintenance I CTE Course
This course is intended to provide students with planned learning experiences and activities that include safety, basic hand and power tools, mathematics, precision measurement, blueprint reading, introduction to electricity, basic carpentry, scaffolding and rigging, and basic welding and cutting. In addition, students are introduced to robotics and other automated manufacturing procedures.

Industrial Maintenance II CTE Course
This course builds on the skills and concepts introduced in Industrial Maintenance I. This course provides planned learning experiences and activities in safety, advanced mathematics, precision measurement, and blueprint reading. The program also includes instruction in preventative maintenance, automated control systems, automated manufacturing, hydraulic/pneumatic equipment, metal lathe operations, drill press and metal sawing operations, rotating equipment, pipe fitting, and insulation.

Repair—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to repair. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Repair—Workplace Experience courses provide students with work experience in the fields involving repair, supported by classroom attendance and discussion. Goals are typically set cooperatively by the student, teacher,
and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**13349A000  Repair—Other**
Other Repair courses.

**13995A000  Manufacturing—Aide**
Manufacturing—Aide courses offer interested students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.
Manufacturing—Independent Study

Manufacturing—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to manufacturing. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Manufacturing—Workplace Experience

Manufacturing—Workplace Experience courses provide students with work experience in fields involving manufacturing, supported by classroom attendance and discussion. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Manufacturing—Other

Other Manufacturing courses.
14 Health Care Sciences

14001A000 Exploration of Health Care Occupations
Exploration of Health Care Occupations courses expose students to the variety of opportunities available within the health care industry (e.g., such as nursing, therapy, dental care, administrative services, and lab technology). These courses provide experiences in several of these occupational clusters, along with information and knowledge related to the health care industry as a whole.

14001A001 Orientation to Health Occupations CTE Course
The course should expose students to the variety of opportunities available within the health care industry (e.g., such as nursing, therapy, vision and dental care, administrative services, and lab technology) which should include classroom and community-based activities. The main purpose of this course is to assist students in further development of their self-concept and in matching personal abilities and interest to a tentative career choice. The suggested course content should provide in-depth information into health occupations careers and trends, the occupational and educational opportunities and the educational, physical, emotional and attitudinal requirements.

14002A000 Health Care Occupations—Comprehensive
Health Care Occupations—Comprehensive courses provide students with an orientation to the health care industry and help refine their health care-related knowledge and skills. Topics covered usually include (but are not limited to) an overview of health care delivery; patient care, including assessment of vital signs, body mechanics, and diet; anatomy and physiology; identification and use of medical equipment and supplies; medical terminology; hygiene and disease prevention; first aid and CPR procedures; laboratory procedures; and ethical and legal responsibilities.

14002A001 Health Occupations Related Skills CTE Course
The course provides students with a core of knowledge to the health care industry and helps refine their health care-related knowledge and skills. This core of knowledge will develop the students' cognitive and affective skills in formulating a strong foundation for entry-level skill development. Topics covered usually include (but are not limited to) an overview of health care delivery; patient care, including assessment of vital signs, body mechanics, and diet; anatomy and physiology; identification and use of medical equipment and supplies; medical terminology; hygiene and disease prevention; first aid and CPR procedures; laboratory procedures; and ethical and legal responsibilities.

14002A002 Health Occupation Entry-Level Skill Development CTE Course
The course should include affective, cognitive and psychomotor skills that are common to most health occupations. Some degree of occupational competency can be developed at this level. The units of instruction, activities and skills should be planned and assessed concurrently utilizing the industry or national standards for assessment whenever possible. These units may include diagnostic and therapeutic measures, management functions, transportation and mobility, psycho-social care, anatomy and physiology, administering medications, patients/clients with special needs. Student performance should be learned and practiced in the classroom and laboratory and supervised closely by approved Emergency Medical Services occupations teachers/worksite mentors in a facility through extended campus or clinical experiences. Both extended campus and clinical experiences require written agreements between educational facilities and respiratory health care providers to determine the responsibilities of each agency.

14002A003 Health Occupations Skill Development CTE Course
The course provides a sequence of organized learning experiences and skills to prepare a person to recognize the signs and symptoms of illness and injury; to begin the approved and appropriate life-support procedures, such as cardiopulmonary resuscitation (CPR); to operate emergency vehicles and communications equipment as patients/clients are moved to a hospital, emergency room; and to fill out the required records and reports after a call. This course should include identified skills to prepare the student for working in the emergency medical arena. The course should include skills to prepare the student for a specific health occupation or cluster of closely related
occupations. Health occupations allow for instruction in multiple occupations. The student must be 18 years of age to sit for the national exam.

14051A000 Nursing
Nursing courses place a special emphasis on the particular knowledge and skills required of nurses and/or nursing assistants and aides while covering general health care topics (i.e., patient care, anatomy and physiology, medical terminology, hygiene and disease prevention, first aid and CPR, and laboratory procedures). Topics covered typically include normal growth and development; bathing, feeding, dressing, and transporting patients; basic pharmacology; doctor, nurse, and patient relationships and roles; medical and professional ethics; death and dying; and care of various kinds of patients (e.g., chronically ill, children, new mothers, and so on).
14051A001 Nursing Assistant CTE Course
The course is composed of a combination of subject matter and experiences designed to perform tasks of individuals receiving nursing services. The student learns those competencies needed to perform as a nurse assistant under the direction of the registered nurse. The units of instruction should include the role of the nurse assistant while covering general health care topics; medical terminology; patients/clients and their environment; special feeding techniques; psychological support and, in long term and terminal illness, death and dying (e.g., chronically ill, children, new mothers, and so on); and all other basic nursing skills. Topics covered typically include normal growth and development; feeding, transporting patients, hygiene, and disease prevention; basic pharmacology; first aid and CPR; observing and reporting; care of equipment and supplies; doctor, nurse, and patient relationships and roles; procedure policies; medical and professional ethics; and care of various kinds of patients. In order to have an approved nurse assistant program (one in which the students are eligible to sit for the certifying exam) the program must be approved by the Illinois Department of Public Health.

14052A000 Nursing—LPN
Covering the same scope of topics as Nursing courses, Nursing—LPN courses delve into more depth in order to prepare students for the state’s practical nurse licensing examination. Nursing—LPN courses offer the knowledge and experience needed to provide nursing care for patients of all ages, in various stages of sickness or health, and with a variety of disease conditions. Additional topics covered may include community health, nutrition, drug therapy and administration, and mental illness.

14052A001 Nursing-LPN CTE Course
The course is composed of a combination of subject matter and learning activities designed to prepare a person to perform as a practical nurse under the direction of the physician or professional nurse. LPN courses offer the knowledge and experience needed to provide nursing care for patients of all ages, in various stages of sickness or health, and with a variety of disease conditions. Through classroom, laboratory and clinical experiences the student is exposed to the following units of instruction: interpersonal relationships; communications; physiological, psychological and sociological principles and needs of patients/clients; basic skills; nutrition and special dietary content. Additional topics covered may include community health, nutrition, drug therapy and administration, and mental illness. This program must meet the approval requirements of the Illinois Department Financial and Professional Regulation.

14053A000 Home Health Care
Home Health Care courses teach students how to care for individuals within their homes. Course content relates health care practices and procedures to the home environment, and typically includes patient care, comfort, and safety; anatomy and physiology; the prevention of disease and infection; nutrition and meal preparation; human relations; and first aid and CPR. Topics covered may also include therapy strategies, household management, and employability.

14053A001 Home Health Aide CTE Course
The course is composed of a combination of subject matter and learning activities designed to prepare a person to care for individuals within their homes. The student learns competencies needed to perform simple tasks involved in the personal care of ill or handicapped individuals under the direction of the attending physician, registered professional nurse and/or licensed practical nurse. The home health agency assigns a registered nurse to provide continuing supervision of this health care. The home health aide is employed in private homes, hospitals, long term care facilities and health care institutions. Course content relates health care practices and procedures to the home environment, and typically includes patient care, comfort, observing, recording, reporting and safety; process of aging; personal care and daily living activities; family relationships; behavior patterns; home management; the prevention of disease and infection; nutrition and meal preparation; human relations; and first aid and CPR. The student must be a certified nurse assistant before becoming a home health aide.
14054A000 Dental Science
Dental Science courses expose students to the tools, terminology, and procedures necessary for a career in the dental industry. Course content covers a wide range of topics and typically includes dental anatomy and terminology; the identification and use of dental equipment; dental pathologies and procedures; asepsis; dental laboratory procedures; emergency first aid; and the ethical and legal responsibilities of dental care workers. These courses often explore dental specialties and career options.

14054A001 Dental Assistant CTE Course
The course exposes students to the tools, terminology, and procedures necessary for a career in the dental industry. The course is responsible for preparing materials for impressions and restorations; and for exposing, processing and mounting dental radiographs. The dental assistant maintains infection control according to Occupational Safety and Health Administration (OSHA) and American Dental Association standards. They also prepare tray setups for dental procedures and provide preventative dental patient/client information. The dental assistant is also trained to manage the office. This includes arranging and confirming appointments, greeting patients/clients, maintaining treatment records, mailing statements, receiving payments and ordering supplies.
Emergency Medical Technology courses place a special emphasis on the knowledge and skills needed in medical emergencies. Topics typically include clearing airway obstructions, controlling bleeding, bandaging, methods for lifting and transporting injured persons, simple spinal immobilization, infection control, stabilizing fractures, and responding to cardiac arrest. The courses may also cover the legal and ethical responsibilities involved in dealing with medical emergencies.

Emergency Medical Technician CTE Course

Surgical Technology courses emphasize the care and needs of patients undergoing surgery while covering general health care topics (i.e., patient care, anatomy and physiology, medical terminology, hygiene and disease prevention, first aid and CPR, and laboratory procedures). In keeping with that focus, topics may include operation room materials, tools, and procedures; aseptic surgical techniques; preparation and handling of surgical instruments; efficiency in the operating room; and the roles of various medical personnel who are present during surgery.

Surgical Technology CTE Course

Vision Care courses expose students to the tools, terminology, and procedures necessary for a career in the optometric or optic field. Vision Care courses typically include the physics of light and refraction; the anatomy, physiology, and terminology associated with the eyes; identification and use of optometric and/or optical equipment; optical procedures; human relations; and the ethical and legal responsibilities of vision care workers.

Vision Care CTE Course

Optometrics courses provide students with the knowledge, ability, and experiences to prepare, assemble, and/or fit corrective lenses prescribed by a physician or optometrist. Topics covered may include layout and marking, cutting and chipping, edging and beveling, inspection, alignment, dispensing, and selection of eyewear.
**14058A001 Optical Technician Assistant**

Optical Technician Assistant course provide students with the knowledge, ability, and experiences to prepare, assemble, and/or fit corrective lenses prescribed by a physician or optometrist. This course provides a sequence of organized learning experiences and skills designed to prepare a person to assist with tests to determine normal and/or defective vision, prepare and fit eyeglasses and/or contact lenses, administer corrective eye exercises and other treatments which do not require drugs or surgery under the supervision of an ophthalmologist, optometrist or physician. It also includes administrative office duties such as scheduling of patients/clients, maintenance of the patient/client record, and billing. This course provides a sequence of organized learning experiences and skills designed to prepare a person to adapt and fit corrective eyeglasses as prescribed by the ophthalmologist or optometrist. Topics covered may include layout and marking, cutting and chipping, edging and beveling, inspection, alignment, dispensing, and selection of eyewear.

**14059A000 Gerontology**

Gerontology courses provide students with knowledge and understanding of the processes of adult development and aging. Topics covered may include the study of the biological, economic, psychological, social, and health/fitness aspects of the aging process.
14059A001 Geriatric Aide CTE Course
Geriatric Aide courses provide students with knowledge and understanding of the processes of adult development and aging. The geriatric aide course is composed of a combination of subject matter and learning activities designed to prepare a person to perform simple tasks involved in the personal care of elderly individuals receiving nursing services. These tasks are performed under the supervision of a licensed practical nurse or registered nurse. Topics covered may include the study of the biological, economic, psychological, social, health and special nutritional needs, fitness and maintenance of body processes, aspects of the aging process, activities of daily living; rehabilitation activities; diagnostic and treatment procedures; patient/client care procedures, and special nursing care needs of the elderly.

14060A000 Physical Therapy
Physical Therapy courses provide students with the knowledge and skills necessary to work with patients who need to achieve and maintain functional rehabilitation and to prevent malfunction or deformity. Topics covered typically include therapeutic exercises and activities (such as stretching and strengthening), how to train patients to perform the activities of daily living, the use of special equipment, and evaluation of patient progress.

14060A001 Physical Therapy Aide CTE Course
Physical Therapy Aide courses provide students with the knowledge and skills necessary to work with patients who need to achieve and maintain functional rehabilitation and to prevent malfunction or deformity. This course provides a sequence of organized learning experiences and skills designed to prepare a person to be knowledgeable of the organizational structure of the physical therapy department; relationships of anatomical structures to normal and abnormal movement (building upon the unit of body systems in an earlier course); pathophysiological conditions resulting from injury and/or disease; terminology; record keeping; interpersonal relationships; first aid; body mechanics; and uses of electricity, hot and cold packs, paraffin, whirlpool, diathermy, microwave, massage assistive and supporting devices, and therapeutic exercises and tractions. The physical therapy aide assists in implementing the plan of therapy for a patient/client as prescribed by a physician. This knowledge is necessary to perform as a physical therapy aide in hospitals, long term care facilities and clinics under the direction of a physical therapy assistant or physical therapist. Topics covered typically include therapeutic exercises and activities (such as stretching and strengthening), how to train patients to perform the activities of daily living, the use of special equipment, and evaluation of patient progress.

14061A000 Respiratory Therapy
Respiratory Therapy courses provide students with the knowledge and skills necessary to work with patients who have breathing or other cardiopulmonary difficulties or disorders. Topics covered typically include identifying deficiencies and abnormalities of the cardiopulmonary system, understanding the various methods of therapies, and understanding how to use special equipment.

14061A001 Respiratory Therapy CTE Course
Respiratory Therapy courses provide students with the knowledge and skills necessary to work with patients who have breathing or other cardiopulmonary difficulties or disorders. This course provides a sequence of organized learning experiences and skills designed for the person to assist in the treatment of patients/clients with heart and lung ailments. Topics covered typically include identifying deficiencies and abnormalities of the cardiopulmonary system, understanding the various methods of therapies, and understanding how to use special equipment. Areas to be included are administration of various types of gases and devices to control temperature, air pressure and humidity; patient/client exercises that will clear fluid from lungs and improve the patient's/client's ability to breathe; and cleaning and sterilizing equipment under the direction of the Respiratory Therapist.

14062A000 Care of Athletes
Care of Athletes courses provide students with the knowledge and skills to understand and perform therapeutic tasks that would be designated by an athletic or fitness trainer. Topics covered may include taping and bandaging, proper
use of protective padding, treatment modalities, anatomy and physiology, and medical terminology. Students may learn to measure cardiorespiratory endurance, muscular strength and endurance, flexibility, body composition, and blood pressure. More advanced topics may include injury assessment, the phases of healing, and the use of exercise and equipment to help in the reconditioning of injured athletes.

14062A001 Sports Management CTE Course
Sports Management courses introduces students to the basic principals and techniques for the prevention, recognition, treatment, and rehabilitation of common injuries and illnesses. Students may learn to measure cardiorespiratory endurance, muscular strength and endurance, flexibility, body composition, and blood pressure. Topics covered may include taping and bandaging, proper use of protective padding, treatment modalities, and medical terminology, budgeting, ordering supplies, as well as general operation of a training room facility. More advanced topics may include injury assessment, the phases of healing, and the use of exercise and equipment to help in the reconditioning of injured athletes.

14063A000 Particular Topics in Therapeutic Services
These courses examine particular topics in medical therapeutic services other than those already described.
14063A001  Mortuary Assistant CTE Course
The course offers a sequence of planned classroom, laboratory and clinical experience to prepare a person to perform tasks to assist in the embalming and cremation of human remains, to provide funeral and burial services, and to sell funerary equipment to the public. It includes instruction in applicable anatomical, cosmetic and technical procedures; facilities and equipment management; equipment and services marketing; legal requirements; and professional standards. The Mortuary Assistant maintains infection control according to Occupational Safety Health Administration (OSHA) and other national standards.

14063A002  Occupational Therapy Aide CTE Course
This course provides a sequence of organized learning experiences and skills designed to prepare a person to be knowledgeable of the organizational structure of the occupational therapy department; relationships of anatomical structures to normal and abnormal movement (building upon the unit of body systems in an earlier course); pathophysiologic conditions resulting from injury and/or disease; terminology; record keeping; interpersonal relationships; first aid; body mechanics, and assist in implementing the plan of therapy for a patient/client as prescribed by a physician as directed by the occupational therapist in a hospital, long-term care facility, retirement home or clinic. This knowledge is necessary to perform as an occupational therapy aide in hospitals, long term care facilities and clinics under the direction of a physical therapy assistant or physical therapist.

14063A003  Rehabilitation Aide CTE Course
This course provides a sequence of organized learning experiences and skills to prepare a person to perform tasks involved in the personal and rehabilitative care of patients/clients. The rehabilitation aide concept is the integration of three major interdisciplinary teams that are the basic skills in the areas of nursing, occupational therapy and physical therapy. This health care person can help insure that the approach to the care of the patient/client is consistent regardless of which specialty area is rendering the service. The rehabilitation aide performs under the supervision of a registered nurse, registered physical therapist or registered occupational therapist in rehabilitation clinics or units in hospitals, extended care facilities and long term care facilities. This unit of instruction could be offered after the student has obtained the certified nurse assistant.

14097A000  Therapeutic Services—Independent Study
Therapeutic Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to therapeutic services. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

14098A000  Therapeutic Services—Workplace Experience
Therapeutic Services—Workplace Experience courses provide students with work experience in fields related to therapeutic services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

14099A000  Therapeutic Services—Other
Other Therapeutic Services courses

14099A001  Survey of Psychiatric Rehabilitation CTE Course
This course should focus on the mental health system and related services, psychiatric disability and related stigma issues, rehabilitative approaches to psychiatric treatment, case management, co-occurring substance abuse disorders, and public policies relevant to mental illness. The units of instruction should include consumer orientation, community supports and public policy, mental health system, wellness and diversity, functional assessment and treatment planning, vocational rehabilitation, substance abuse and MISA, disability as disease, legal and ethical...
issues, case management and ACT, knowledge of medications, process model of psychiatric rehabilitation, families, and stigma of mental illness.

14099A002 Psychiatric Rehabilitation Skills CTE Course
This course should focus on the mental health system and related services, adult learners and methods for skills training, process model for social and coping skills training, medication management skills, and conducting skills training groups.

14099A003 Health and Safety Skills for Psychiatric Rehabilitation CTE Course
This course should focus on the mental health system and related services, basic CPR, First Aid, infection control, vital signs, nutrition, and safety. It is suggested that the Certified Nursing Assistant course be given at this time as the basic foundation. The student would then become eligible upon successful completion of all of the skills and knowledge for dual certification at the end of course of study.
14099A004 Vocational Rehabilitation and Community Living Skills CTE Course
This course should focus on the mental health system and related services, supported employment, work as therapy, job coaching, Americans with Disabilities Act, and case management for community living.

14101A000 Dental Laboratory Technology
Dental Laboratory Technology courses expose students to the principals, tools, terminology, and procedures necessary for a career in a dental laboratory. These courses typically cover many of the same topics as Dental Science, but emphasize making mouth guards, taking impressions, creating various types of dental molds and models, and fabricating prostheses and dental appliances.

14101A001 Dental Laboratory Aide CTE Course
The course exposes students to the principals, tools, terminology, and procedures necessary for a career in a dental laboratory. The student is introduced to working with the dentist, dental assistant and dental hygienist in the examination of patients/clients. The student learns to arrange and confirm appointments, greet patients/clients, and maintain treatment records. The students learn to maintain infection control according to Occupational Safety and Health Administration (OSHA) and American Dental Association standards in assisting the dental assistant or dentist in preparing for dental procedures. The dental laboratory aide may also learn to assist the dental laboratory technologist in making, repairing and polishing dentures; constructing crowns or bridges for partially destroyed teeth; and making orthodontic appliances (tooth straightening devices).

14102A000 Medical Lab Technology
Medical Lab Technology courses provide students with the knowledge and skills necessary for employment in health care-related laboratories. Topics include basic principles of anatomy and physiology, relevant concepts in microbiology and chemistry, and laboratory techniques (including preparation and analysis of various cultures and specimens). The courses may also cover such components as venipuncture, EKG, and CPR procedures.

14102A001 Medical Lab Technician CTE Course
Medical Lab Technician courses provide students with the knowledge and skills necessary for employment in health care-related laboratories. This course provides a sequence of organized competencies necessary to perform tasks which include laboratory requisitions and reports; care of laboratory equipment; aseptic techniques; basic laboratory mathematics (metrics); handling of specimens; blood collection techniques; and interdepartmental relationships such as introduction to the departments of hematology, urology, serology, bacteriology and others.

14103A000 EKG Technology
In EKG Technology courses, students acquire the knowledge and skills to perform electrocardiograph activities and learn about the cardiovascular system (including its function, diseases, and rhythms); EKG machinery; and the use of drugs and their effects. These courses usually include general health care topics as well, such as basic anatomy and physiology, patient care, first aid and CPR, identification and use of medical equipment, and medical terminology.

14103A001 Electrocardiograph (EKG) Technician CTE Course
In EKG Technology courses, students acquire the knowledge and skills to perform electrocardiograph activities and learn about the cardiovascular system (including its function, diseases, and rhythms); EKG machinery; and the use of drugs and their effects. This course provides a sequence of organized learning experiences and skills designed to utilize the electrocardiograph machine to record the variation in time and potential of the electric current associated with action of the heart muscle by learning proper electrode sites and placement; quality control; interpersonal relationships; interdepartmental relationships, anatomy and physiology; and observing and reporting. The student learns the competencies needed to perform as an EKG technician in a hospital, clinic or doctor's office under the direction of a physician. These courses usually include general health care topics as well, such as basic anatomy and physiology, patient care, first aid and CPR, identification and use of medical equipment, and medical terminology.
14104A000 Phlebotomy

In Phlebotomy courses, students acquire knowledge, skills, and experiences related to the drawing of blood and typically learn about such topics as infection control, sterilization practices, medical/hospital procedures and environments, diagnostic procedures, and the process of drawing blood.
14104A001 Clinical Laboratory Assistant/Phlebotomist CTE Course
In Phlebotomy courses, students acquire knowledge, skills, and experiences related to the drawing of blood and typically learn about such topics as infection control, sterilization practices, medical/hospital procedures and environments, diagnostic procedures, and the process of drawing blood. This course provides a sequence of organized competencies necessary to perform tasks which include laboratory requisitions and reports; care of laboratory equipment; aseptic techniques; basic laboratory mathematics (metrics); handling of specimens; blood collection techniques; and interdepartmental relationships such as introduction to the departments of hematology, urology, serology, bacteriology and others. In addition, students should be introduced to departmental procedures, policies and standards.

14105A000 Particular Topics in Diagnostic Services
These courses examine particular topics in diagnostic services other than those already described.

14105A001 Radiological Technology/Technician CTE Course
Radiological Technology/Technician course provides a sequence of organized learning experiences and skills designed to prepare a person to assist the radiographer by transporting patients/clients from the emergency room or nursing unit to the x-ray department, positioning the patient/client, assisting the patient/client to dress and putting the patient/client at ease in unfamiliar surroundings. This course introduces the student to the medical equipment and materials used for diagnostic and therapeutic services under the supervision of a radiation therapist or physician.

14147A000 Diagnostic Services—Independent Study
Diagnostic Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to diagnostic services. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

14148A000 Diagnostic Services—Workplace Experience
Diagnostic Services—Workplace Experience courses provide students with work experience in fields related to diagnostic services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

14149A000 Diagnostic Services—Other
Other Diagnostic Services courses.

14151A000 Medical/Clerical Assisting
Medical/Clerical Assisting courses enable students to develop knowledge and skills that combine the medical and clerical fields. Students typically develop skills such as patient exam preparation, assessment of vital signs, routine lab procedures, medical transcription, financial accounting, patient and insurance company billing, and record-keeping.

14151A001 Medical/Clerical Assisting CTE Course
Medical/Clerical Assisting course provides student development in a sequence of organized learning experiences and skills designed knowledge and skills that combine the medical and clerical fields. Students typically develop skills such as patient exam preparation, assessment of vital signs, routine lab procedures, medical transcription, financial accounting, patient and insurance company billing, and record-keeping. This course suggest common clerical duties which include answering phones; greeting patients/clients; handling mail, patient/client data files and medical histories; ordering supplies; dealing with representatives from pharmaceutical companies and medical suppliers; and performing common clinical duties which include sterilizing instruments, preparing patients/clients for examination or
treatment; taking temperatures, pulse, respiration and blood pressure; measuring height and weight; performing routine laboratory procedures; and assisting the physician with patient/client examinations and treatment under the direction of the professional medical staff. In addition, the medical assistant should be able to understand the health problems of patients/clients, ethics and legal issues, human relationships and interpersonal relationships.

14152A000 Pharmacy Assisting

Pharmacy Assisting courses emphasize the knowledge and skills necessary to assist a pharmacist or pharmacy technician. Course topics and experiences enable students to understand medical terminology, keep and maintain records, label medications, perform computer patient billing, perform stock inventory, and order supplies. These courses also emphasize pharmaceutical classification, drug interactions, and interpersonal/communication skills.
Pharmacy Assisting courses emphasize the knowledge and skills necessary to assist a pharmacist or pharmacy technician. Courses topics and experiences enable students to understand medical terminology, keep and maintain records, label medication, perform computer patient billing, perform stock inventory, and order supplies. These courses also emphasize pharmaceutical classification, drug interactions, and interpersonal/communication skills.

Medical Office Procedures courses expose students to clerical knowledge, abilities, and procedures as they apply to the medical field. These courses typically include (but are not limited to) topics such as medical transcription, medical insurance, financial accounting, scheduling, and patient record-keeping. Medical terminology and routine medical procedures are covered to provide a context for clerical duties.

Medical Terminology courses students learn how to identify medical terms by analyzing their components. These courses emphasize defining medical prefixes, root words, suffixes, and abbreviations. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions.

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These courses examine particular topics in health Information other than those already described.

Health Information—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to health information systems. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Health Information—Workplace Experience courses provide students with work experience in fields related to health Information. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other Health Information courses.

Central Service Technology courses provide students with knowledge and skills related to the procurement, handling,
storage, and distribution of sterile goods and equipment. Course components usually include quality assurance, infection control and isolation techniques, medical terminology and processes, decontamination and sterilization, microbiology, and chemistry.

14201A001 Central Supply Services CTE Course

Central Supply Service course provide students with knowledge and skills related to the procurement, handling, storage, and distribution of sterile goods and equipment. It provides a sequence of organized learning experiences and skills designed to perform tasks that include inspecting, assembling and evaluating equipment and supplies. Perform aseptic techniques in cleaning and sterilizing equipment and supplies under the supervision of a central supply technician. Course components usually include quality assurance, infection control and isolation techniques, medical terminology and processes, decontamination and sterilization, microbiology, and chemistry.
14202A000  Health Support Services
Health Support Services courses provide students with knowledge and skills to be used in activities that support patients’ primary health care, such as counseling, health education, disease management, and risk reduction. Because support services can be widely defined, course topics typically also include general health care, such as anatomy and physiology, medical terminology, first aid and CPR procedures, and ethical and legal responsibilities.

14202A001  Medical Records Assistant  CTE Course
This course provides a sequence of organized learning experiences and skills designed to prepare an individual to assist other medical record personnel by typing, filing and performing general office duties; organizing, analyzing and technically evaluating health records, coding symptoms, diseases or operations; preparing health data for input into computers; and compiling administrative and health statistics for use by public health officials under the direction of the medical records administrator.

14203A000  Health Unit Coordination
Health Unit Coordination courses provide students with instruction and experiences so that they can manage components of nonpatient care activities in health care facilities. Topics covered usually include medical terminology, transcription, and general reception duties and responsibilities; recordkeeping; and stocking medical and office supplies and equipment.

14203A001  Unit Clerk (Ward Clerk)  CTE Course
Unit Clerk (Ward Clerk) courses provide students with instruction and experiences so that they can manage components of nonpatient care activities in health care facilities. This course provides a sequence of organized learning experiences and skills necessary for a person to perform tasks requiring good communication skills, correct terminology and spelling and an understanding of policies and rules and regulations regarding visitors, patients/clients, and coworkers. Clerical responsibilities of record keeping, transcribing physicians’ orders and requisitions, operating a computer, and using a multiplicity of standard and special chart forms are a necessary part of this occupational training program. Patient/client care activities involving areas of admission, discharge, transfer, death, laboratory listing, etc., are performed under the direction of the professional nurse/unit manager in long term care facilities, hospitals or clinics. Topics covered usually include medical terminology, transcription, and general reception duties and responsibilities; recordkeeping; and stocking medical and office supplies and equipment.

14204A000  Particular Topics in Support Services
These courses examine particular topics in health support services other than those described.

14247A000  Health Support Services—Independent Study
Health Support Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics related to health support services. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

14248A000  Health Support Services—Workplace Experience
Health Support Services—Workplace Experience courses provide students with work experience in careers related to health support services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

14249A000  Health Support Services—Other
Other Health Support Services courses.
14251A000  Health Science
Health Science courses integrate chemistry, microbiology, chemical reactions, disease processes, growth and development, and genetics with anatomy and physiology of the body systems. Typically, these courses reinforce science, mathematics, communications, health, and social studies principles and relate them to health care.

14251A001  Human Body System (PLTW)  CTE Course
Human body System courses provide the study of basic human physiology, especially in relationship to human health. A central theme is how the body systems work together to maintain internal balance and good health. Students use data acquisition software to monitor body functions and study body structure.
Biotechnology courses involve the study of the bioprocesses of organisms, cells, and/or their components and enable students to use this knowledge to produce or refine products, procedures, and techniques. Course topics typically include laboratory measurement, monitoring, and calculation; growth and reproduction; chemistry and biology of living systems; quantitative problem-solving; data acquisition and display; and ethics. Advanced topics may include elements of biochemistry, genetics, and protein purification techniques.

Biomedical Sciences (PLTW) CTE Course
Biomedical courses introduce students to the broad field of biomedical science. It provides the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body system and various health conditions including: heart disease, diabetes, sickle cell disease, hypercholesterolemia, and infectious diseases.

Pharmacology courses involve a study of how living animals can be changed by chemical substances, especially by the actions of drugs and other substances used to treat disease. Basic concepts of physiology, pathology, biochemistry, and bacteriology are typically brought into play as students examine the effects of drugs and their mechanisms of action.

Pharmacology Technician CTE Course
Pharmacy Technician courses provides a sequence of organized learning experiences and skills designed to prepare the person to input information into the computer, obtain the client's records; file requisitions and prescriptions; check and order supplies; perform interdepartmental communications; use pharmacological terminology; observe drug dispensing, drugs and dosages; understand the Unit Dosage System; and review physician's drug order sheet. All the skills listed above are performed under the supervision of a registered pharmacist. Course topics and experiences enable students to understand medical terminology, keep and maintain records, label medications, perform computer patient billing, perform stock inventory, and order supplies. These courses also emphasize pharmaceutical classification, drug interactions, and interpersonal/communication skills.

Particular Topics in Health Sciences
These courses examine particular topics in health sciences other than those already described.

Medical Interventions (PLTW) CTE Course
Medical Intervention courses provides student projects that investigate various medical interventions that extend and improve the quality of life including; diagnostics, surgery, bio-nanotechnology, pharmacology, prosthetics, rehabilitation, and lifestyle choices. Possible topics include stem cell research, cochlear implants, insulin pumps, joint and organ replacements, heart pacers, and internal defibrillators.

Health Sciences—Independent Study
Health Sciences—Independent Study courses, often conducted with instructors as mentors, enable students to explore health-related topics of interest. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Health Sciences—Workplace Experience
Health Sciences—Workplace Experience courses provide students with work experience in fields involving the health sciences. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.
14299A000  Health Sciences—Other
Other Health Sciences courses.

14299A001  Biomedical Capstone (PLTW)  CTE Course
Biomedical Capstone course provides the ability to design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. Students apply knowledge and skills to answer questions or to solve problems related to biomedical sciences. Students may work with a mentor or have an advisor from a university, hospital, physician’s office, or industry as they complete their work. Students will be expected to make a presentation of their work to an adult audience that may include representatives from the local community or the school’s PLTW partnership team.
Health Care Sciences—Aide
Health Care Sciences—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Health Care Sciences—Independent Study
Health Care Sciences—Independent Study courses, often conducted with instructors as mentors, enable students to explore health-related topics of interest. Independent Study courses may provide students with an opportunity to expand their expertise in a particular specialization, to explore a topic in greater detail, or to develop more advanced skills.

Health Care Sciences—Workplace Experience
Health Care Sciences—Workplace Experience courses provide students with work experience in the health care industry. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Health Occupations Cooperative Education CTE Course
The course provides students with work experience in the health care industry. This course is designed for students interested in pursuing careers in health occupations. Students are released from school for their paid cooperative education work experience and participate in 200 minutes per week of related classroom instruction. Classroom instruction focuses on providing students with job survival skills, career exploration skills related to the job, and improving students’ abilities to interact positively with others. For skills related to the job, refer to industry standards of the desired career. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Health Care Sciences—Other
Other Health Care Sciences courses.
15 Public, Protective, and Government Service

15001A000 Exploration of Public Service Careers
Exploration of Public Service Careers courses expose students to the duties, responsibilities, requirements, and career opportunities within public service. Course topics vary and may include (but are not limited to) protective services; correction, judicial, and probation services; fire protection and fire fighting; public administration; and social work. Course activities depend upon the career clusters that students explore.

15051A000 Criminal Justice
Criminal Justice courses train students to understand and apply the principles and procedures essential to the U.S. criminal justice system. These courses explore the principles and structure of the justice system and the law, and course content also typically includes investigation, search and arrest, and laboratory, forensic, and trial procedures. Students may also learn CPR and first aid skills, personal defense tactics, and crime prevention techniques.

15051A003 Law Enforcement I CTE Course
This course is designed to prepare students to enter the fields of law enforcement and the criminal justice system. Instruction includes the history of law enforcement and the legal system, report writing and recordkeeping, criminal investigation techniques, and routine police procedures. Students learn how to use communications and dispatch equipment, perform proper search and seizure techniques, conduct basic criminal investigations, and execute correct pursuit and arrest procedures. Instruction also includes patrolling techniques, private security operations, traffic investigations, and community relations.

15051A004 Law Enforcement II CTE Course
This course provides experiences for students in basic investigative techniques for crimes against people and property. Learning activities emphasize the development of more advanced knowledge and skill than those provided in Law Enforcement I. Units of instruction include how to conduct a preliminary investigation and protect a crime scene, collect and preserve physical evidence including dusting latent prints, casting, fingerprint classification, and the use of portable crime laboratory equipment. Students learn how to conduct interviews, complete police reports, use police equipment, and testify in court. Instruction also includes traffic control, personal security, and law enforcement administration.

15051A005 Security I CTE Course
This course is designed to prepare students to enter the fields of law enforcement and the criminal justice system. Instruction includes the history of law enforcement and the legal system, report writing and recordkeeping, criminal investigation techniques, and routine police procedures. Students learn how to use communications and dispatch equipment, perform proper search and seizure techniques, conduct basic criminal investigations, and execute correct pursuit and arrest procedures. Instruction also includes patrolling techniques, private security operations, traffic investigations, and community relations.

15051A006 Security II CTE Course
This course provides learning activities to assist students in understanding the differences and similarities between the criminal justice system and security and protective services, incident response techniques, crime prevention, security operations, and crime in the workplace. Learning activities emphasize the development of more advanced knowledge and skill than those provided in Security I.

15052A000 Corrections
Corrections courses provide instruction regarding the principles and techniques used by institutions that incarcerate, rehabilitate, and monitor people accused or convicted of crimes.
15052A001  Corrections  CTE Course
This course will provide instruction regarding the principles and techniques used by institutions that incarcerate, rehabilitate, and monitor people accused or convicted of crimes. Course topics vary and may include (but are not limited to) protective services; correction, judicial, and probation service; public administration; and social work.

15053A000  Particular Topics in Law Enforcement
These courses examine specific topics related to law enforcement (such as forensic science), rather than provide a general study of the field.

15097A000  Law Enforcement—Independent Study
Law Enforcement—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to law enforcement. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
Law Enforcement—Workplace Experience
Law Enforcement—Workplace Experience courses provide work experience in fields related to law enforcement. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Law Enforcement—Other
Other Law Enforcement courses.

Public Safety
Public Safety courses introduce students to the field of public safety and extend their knowledge and skills pertaining to the safety and security of homes, workplaces, and the community. These courses cover such topics as policing, law enforcement, emergency service, and private security and corrections and may cover all or a subset of these services.

Security Services
Security Services courses provide instruction regarding the safety and security of buildings and facilities and may extend these lessons to include the security and safety of one’s self and other human beings.

Particular Topics in Security
These courses examine specific topics related to security and protective services, rather than provide a general study.

Security and Protection—Independent Study
Security and Protection—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related the security and protection of the public. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Security and Protection—Workplace Experience
Security and Protection—Workplace Experience courses provide work experience in fields related to security and protection. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Security and Protection—Other
Other Security and Protection courses.

Fire Science
Fire Science courses introduce students to the field of fire prevention and control and enable them to extend their knowledge through the use of chemical, physical, and engineering principles to understand factors involved in fires. Course topics typically include the chemistry of combustion, factors that influence fire (such as structural design and meteorology), and safety procedures.

Fire Fighting
Fire Fighting courses offer students the opportunity to learn fire prevention and control under controlled conditions. Typically, students learn about the organization, rules, requirements, and regulations of fire departments; study and practice the tools and techniques used by firefighters to control or extinguish fires; and examine the behavior of fires.
These courses also usually include emergency medical procedures and present fire investigation techniques.

**15152A001 Fire-Fighting I CTE Course**

This course is designed to provide students with the skills needed to prevent and extinguish fires, maintain and repair fire service related equipment, provide basic emergency medical treatment, and prepare public service information concerning fires and hazardous materials. Instruction includes the physical characteristics of fire as well as general safety practices, basic fire behavior, and extinguishing principles. Students learn rescue and extrication procedures, types and use of ground ladders, proper ventilation techniques, and appropriate use of various water supply systems, and how to use ropes and tie knots. Students also learn basic emergency medical techniques and practices which include medical legal considerations, terminology, airway management, patient assessment and transportation, and emergency treatment.
15152A002 Fire-Fighting II
CTE Course
This course builds on the concepts and skills introduced in Fire-Fighter I. Instruction is provided in the use of fire hoses, controlling property loss along with fire control techniques, detection systems, and prevention practices. Instruction includes communication procedures, procedures for operating emergency vehicles, maintaining fire-related equipment and vehicles, and securing and protecting evidence. Students may learn procedures for treating poisonings and allergic reactions, environmental emergencies, and hazardous waste removal, as well as how to treat soft tissue, musculoskeletal, and head and spine injuries.

15153A000 Particular Topics in Fire Management
These courses examine specific topics related to fire management (such as hazardous materials handling), rather than provide a general study of the field.

15197A000 Fire Management—Independent Study
Fire Management—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to fire management. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

15198A000 Fire Management—Workplace Experience
Fire Management—Workplace Experience courses provide work experience in fields related to fire management. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

15199A000 Fire Management—Other
Other Fire Management courses.

15201A000 Public Administration
Public Administration courses provide an overview of the structure, roles, and duties of public governments and associated agencies. These courses explore the foundation and evolution of the public service sector, issues related to the provision of services by governmental bodies, and the missions and constraints of various departments within local and state governments. In addition, students may explore a particular public administration topic (such as the tax base and structure, the legislative process, selection of public servants, resource management, and so on) in greater detail.

15202A000 Community Protection
Community Protection courses provide students with information regarding the personnel and agencies concerned with protection of the home, city, state, and nation. Topics covered typically include civil defense and disaster preparedness; crime prevention; pollution control; fire prevention and control; legal and social systems and principles; and public health. These topics may be explored from the viewpoint of a community resident and citizen using these services or of that of one interested in pursuing a public service career.

15203A000 Public Policy
Public Policy courses provide students with the opportunity to design, propose, and analyze programs and policies implemented by government agencies. Activities typically include identifying social issues and problems, generating recommendations, using data to quantify the extent of a problem or evaluate its solution, communicating ideas and findings, and understanding decision-making processes.
15247A000  Government Service—Independent Study
Government Service—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to the provision of government services. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

15248A000  Government Service—Workplace Experience
Government Service—Workplace Experience courses provide work experience in fields related to government service. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

15249A000  Government Service—Other
Other Government Service courses.
15995A000  Public, Protective, and Government Service—Aide  
Public, Protective, and Government Service—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

15997A000  Public, Protective, and Government Service—Independent Study  
Public, Protective, and Government Service—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to public, protective, and government service. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

15998A000  Public, Protective, and Government Service—Workplace  
Public, Protective, and Government Service—Workplace Experience courses provide students with work experience in a field related to public, protective, and/or government service. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

15999A000  Public, Protective, and Government Service—Other  
Other Public, Protective, and Government Service courses.
16 Hospitality and Tourism

16001A000 Exploration of Hospitality Careers
Exploration of Hospitality Careers courses survey a wide array of topics while exposing students to the variety of career opportunities in hospitality fields (such as food service, lodging, tourism, and recreation). These courses serve to introduce students to the general field of hospitality, providing an opportunity to identify a focus for continued study.

16051A000 Exploration of Restaurant, Food and Beverage Services
Exploration of Restaurant, Food, and Beverage Services courses provide students with an overview of the restaurant, food, and beverage service industry. Topics covered include industry terminology, the history of restaurant, food, and beverage services, introduction to marketing, and the various careers available in the industry.

16052A000 Restaurant, Food and Beverage Services—Comprehensive
Restaurant, Food, and Beverage Services—Comprehensive courses provide students with knowledge and skills related to commercial and institutional food service establishments. Course topics range widely, but usually include sanitation and safety procedures, nutrition and dietary guidelines, food preparation (and quantity food production), and meal planning and presentation. Restaurant, Food, and Beverage Service courses may include both “back-of-the-house” and “front-of-the-house” experiences, and may therefore also cover reservation systems, customer service, and restaurant/business management.

16052A001 Culinary Occupations I CTE Course
This course provides terminology, culinary math, and practical experiences needed for the development of culinary competencies and workplace skills. Safety and sanitation instruction and classroom application will prepare students for an industry recognized sanitation exam. Classroom experiences will develop skills to work in the front of the house, back of the house, and work stations. Additional content may include: event planning, customer service and relations, food service styles, baking and pastry arts, hors d’oeuvres, and breakfast cookery. Students will be provided opportunity training experiences on commercial equipment.

16053A000 Food Service
Food Service courses provide instruction regarding nutrition, principles of healthy eating, and the preparation of food. Among the topics covered are large-scale meal preparation, preserving nutrients throughout the food preparation process, use and care of commercial cooking equipment, food storage, advances in food technology, sanitation, management, and the careers available in the food service industry.

16054A000 Nutrition and Food Preparation
Nutrition and Food Preparation courses provide students with knowledge and skills about food preparation and/or production, with a strong emphasis on nutrition, balanced diets, and satisfying special dietary needs. Topics typically include assessing nutrient content, the science of food and nutrition, physiology and utilization of nutrients. Course content may also cover additives, contaminants, foodborne illnesses, and food technology.

16054A001 Nutrition and Culinary Arts I CTE Course
This course includes classroom and laboratory experiences needed to develop a knowledge and understanding of culinary principles and nutrition for people of all ages. Course content encompass: food service and preparation management using the decision-making process; meeting basic needs by applying nutrition concepts; meeting health, safety, and sanitation requirements; maximizing resources when planning/preparing/preserving/serving food; applying hospitality skills; analyzing nutritional needs in relation to change; and careers in nutrition and culinary arts, including entrepreneurship investigation.
16054A002 Nutrition and Culinary Arts II CTE Course
Nutrition and Culinary Arts II provides principles of application into the hospitality industry, including nutrition, culinary, and entrepreneurial opportunities. Course content includes the following: selection, purchase, preparation, and conservation of food, dietary needs and trends, regional & international cuisine, safety and sanitation, and careers in food service industries. All of these concepts can be interpreted through laboratory experiences.

16054A003 Nutrition and Wellness Occupations CTE Course
This course will concentrate on expanding student’s knowledge and experiences with nutrition concepts, food science, and healthy lifestyles. Nutritional analysis, nutrient functions, food allergies, diet and disease, menu analysis, energy and wellness, meal planning and management, nutritional needs across the life span, impacts of science and technology on nutrition and wellness issues, and food safety and sanitation management are topics covered in this course through theory, projects, and laboratory experiences. Students will gain experience in preparing a variety of communications to teach the importance nutrition and wellness.
Restaurant Management and Operations
Restaurant Management and Operations courses provide students with knowledge and skills related to commercial and institutional food service establishments, with an emphasis on management. Course topics therefore include guest service and relationships, planning, resource management, and other topics related to managing and operating restaurants.

Culinary Occupations II
Culinary Occupations II places special emphasis for students to develop operational management skills-including design and organization of food service systems in a variety of settings, human relations, and personnel training and supervision. Additional topics include: food cost accounting; taking inventory; advertising; monitoring consumer and industry trends; and individualized mastery of culinary techniques. Training experiences involve equipment and facilities simulating those found in business and industry.

Culinary Art Specialty
Culinary Art Specialty courses provide instruction in a particular type of cooking or culinary style. Examples of such specialty fields include baking, creating and decorating wedding cakes, Middle Eastern cuisine, and so on. These courses emphasize skills specific to the type of culinary art being studied.

Particular Topics in Restaurant, Food and Beverage Services
These courses examine specific topics related to Restaurant, Food, and Beverage Services, such as catering, rather than provide a general study of the industry or of specific topics already described.

Restaurant, Food and Beverage Services—Independent Study
Restaurant, Food, and Beverage Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the restaurant, food, and beverage services industry. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Restaurant, Food and Beverage Services—Workplace Experience
Restaurant, Food, and Beverage Services—Workplace Experience courses provide work experience in fields related to restaurant, food, and beverage services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Restaurant, Food and Beverage Services—Other
Other Restaurant, Food and Beverage Service courses.

Exploration of Lodging Careers
Exploration of Lodging Careers courses provide an overview of the lodging industry. Topics covered include lodging terminology, the history of lodging, introduction to marketing, and the various careers available in the lodging industry.

Lodging—Comprehensive
Lodging—Comprehensive courses introduce students to the lodging industry and refine their related knowledge and skills. Topics covered typically include property management, guest psychology and relationships, lodging operations, food and beverage services, and other topics related to support services within the lodging industry.

Institutional Maintenance
Institutional Maintenance courses present the knowledge and skills required for service work within institutions. Topics covered typically include housekeeping and laundry services, care and cleaning of facilities, and safety and sanitation procedures, in addition to career opportunities, business responsibilities, and other types of ongoing maintenance.

16104A000 Particular Topics in Lodging
These courses examine specific topics in lodging such as convention planning or hotel management rather than provide a general study of the industry or of specific topics already described.
16147A000 Lodging—Independent Study
Lodging—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the lodging industry. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

16148A000 Lodging—Workplace Experience
Lodging—Workplace Experience courses provide work experience in fields related to lodging. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

16149A000 Lodging—Other
Other Lodging courses.

16151A000 Introduction to Travel and Tourism
Introduction to Travel and Tourism courses provide an overview of the travel and tourism industry. Topics covered in this course may include travel and tourism terminology, the history of travel, introduction to marketing, and the various careers available in travel and tourism.

16152A000 Travel and Tourism—Comprehensive
Travel and Tourism—Comprehensive courses provide the knowledge and skills necessary to work in the travel industry such as sales techniques, marketing principles, and entrepreneurial skills. Additional skills learned in these courses typically include travel agency procedures, airline reservation systems, public relations, hotel/motel registration systems and services, and conference and convention planning.

16153A000 World Travel and Tourism
World Travel and Tourism courses provide the knowledge and skills necessary to work in the travel industry, with a focus on travel outside of the United States. Topics covered may include geography of the continents; customs, cultures, and tourist destinations in other countries; special documentation needed for international travel; and planning events to client specifications.

16154A000 Eco-tourism
Eco-tourism courses provide the knowledge and skills necessary to work in the travel industry, with particular attention paid to conservation and environmental issues surrounding travel and tourism. Topics covered may include recreational opportunities related to on- and off-site attractions and environmental and ecological principles.

16155A000 Particular Topics in Travel and Tourism
These courses examine specific topics in travel and tourism such as the airline reservation and ticketing system rather than provide a general study of the industry or of specific topics already described.

16197A000 Travel and Tourism—Independent Study
Travel and Tourism—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the travel and tourism industry. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

16198A000 Travel and Tourism—Workplace Experience
Travel and Tourism—Workplace Experience courses provide work experience in fields related to travel and tourism. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

16199A000  Travel and Tourism—Other
Other Travel and Tourism courses.

16201A000  Exploration of Recreation, Amusement and Attractions
Exploration of Recreation, Amusement, and Attractions courses provide an overview of the recreation industry. Topics covered in this course may include industry terminology; the history of recreation, amusement, and attractions; introduction to marketing; and the various careers available in the industry.
Recreation, Amusement and Attractions—Comprehensive
Recreation, Amusement, and Attractions—Comprehensive courses provide students with the attitudes, skills, and knowledge needed for employment in theme parks, attractions and outdoor recreation facilities, exhibitions, and event planning. Topics covered may include planning trade shows, fairs, and conferences; outdoor recreation and management; financial transactions; salesmanship; guest services and satisfaction; culture and customs; computer and industry technology; eco-tourism; client information; and planning specialized events while incorporating themes, timelines, budgets, target audiences, agendas, and public relations.

Particular Topics in Recreation, Amusement and Attractions
These courses examine specific topics in recreation, amusement, and attractions such as local opportunities rather than provide a general study of the industry.

Recreation, Amusement and Attractions—Independent Study
Recreation, Amusement, and Attractions—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the recreation, amusement, and attractions industry. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Recreation, Amusement and Attractions—Workplace Experience
Recreation, Amusement, and Attractions—Workplace Experience courses provide work experience in fields related to recreation, amusement, and attractions. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Recreation, Amusement and Attractions—Other
Other Recreation, Amusement and Attractions courses.

Hospitality and Tourism—Aide
Hospitality and Tourism—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Hospitality and Tourism—Independent Study
Hospitality and Tourism—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest within the hospitality and tourism industry. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Hospitality and Tourism—Workplace Experience
Hospitality and Tourism—Workplace Experience courses provide work experience in fields related to hospitality and tourism. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Hospitality and Tourism—Other
Other Hospitality and Tourism courses.
17  Architecture and Construction

17001A000  Construction Careers Exploration
Construction Career Exploration courses expose students to the opportunities available in construction-related trades, such as carpentry, masonry, air conditioning/refrigeration, plumbing, and so on. Students learn about the processes involved in construction projects and may engage in a variety of small projects. These courses emphasize responsibilities, qualifications, work environment, rewards, and career paths within construction-related fields.

17002A000  Construction—Comprehensive
Construction—Comprehensive courses provide students with basic knowledge and skills required for construction of commercial, residential, and institutional structures. These courses provide experiences and information (typically including career opportunities and training requirements) regarding construction-related occupations such as carpentry, cabinetmaking, bricklaying, electrical trades, plumbing, concrete masonry, and so on. Students engage in activities such as reading blueprints, preparing building sites, starting foundations, erecting structures, installing utilities, finishing surfaces, and providing maintenance.

17002A001  Construction Trades I CTE Course
This course provides experiences related to the erection, installation, and maintenance of residential buildings and related fixtures. Planned learning activities allow students to understand fundamental principles and methods, and develop technical skills related to masonry, carpentry, and finish work. Instruction includes safety principles and practices, recognition of standard lumber sizes, foundation layout methods, building concepts and procedures, local, state, and national codes, cost estimating, and blueprint reading.

17002A002  Construction Trades II CTE Course
This course provides learning experiences related to the erection, installation, maintenance, and repair of building structures and related utilities. Student technical skill experiences include instruction and activities in safety principles and practices, performing maintenance control functions, joining pipes, building water distribution lines and drains, installing and maintaining plumbing fixtures and systems, installing switch and outlet boxes, light fixtures, service entrances, roughing in and trimming out electrical devices and appliances, preparing foundations and footings, constructing residential chimneys and fireplaces, laying, jointing and pointing brick, and advanced building and construction methods and codes. All learning experiences are designed to allow the student to acquire job-entry skills and knowledge.

17003A000  Carpentry
Carpentry courses provide information related to the building of wooden structures, enabling students to gain an understanding of wood grades and construction methods and to learn skills such as laying sills and joists; erecting sills and rafters; applying sheathing, siding, and shingles; setting door jambs; and hanging doors. Carpentry courses may teach skills for rough construction, finish work, or both. Students learn to read blueprints, draft, use tools and machines properly and safely, erect buildings from construction lumber, perform finish work inside of buildings, and do limited cabinet work. Carpentry courses may also include career exploration, good work habits, and employability skills.

17003A001  Carpentry I CTE Course
This course is designed to introduce students to the Carpentry/Carpenter occupation. Students are instructed in areas of safety, including hand tool, power tool, ladder, scaffolding and the use of safety harnesses. Students are introduced to the theoretical knowledge needed to lay out rafter, stairs, and basic framing techniques. Students demonstrate knowledge of blueprint reading, including foundations, concrete, floor plans, specification schedules, and electrical, plumbing and mechanical symbols. Students demonstrate entry-level skills in all facets of residential construction. Technology-related mathematics, reading, writing, vocabulary, blueprint reading, and science are
integrated throughout the curriculum.

**17003A002  Carpentry II**  
CTE Course  
This course provides learning experiences related to the erection, installation, maintenance and repair of building structures and related utilities. Students are instructed in areas of safety, including hand tool, power tool, ladder, scaffolding and the use of safety harnesses. Students demonstrate knowledge of exterior trim and finishes, energy conservation in residential construction, and design of stairs and rafter building. Students gain knowledge of planning and zoning regulations and building codes. Students are introduced to estimating both materials and construction costs, and demonstrate basic knowledge in applying drywall materials, stair-building skills, designing and erecting wall partitions, applying roofing materials, and installing common siding and interior finish. Technology-related mathematics, reading, writing, vocabulary, blueprint reading, and science are integrated throughout the curriculum.

**17004A000  Framing Carpentry**  
Framing Carpentry courses provide students with much of the same knowledge as general carpentry courses (knowledge of various types and grades of woods, proper and safe use of hand and power tools, and site selection and preparation), but place a special emphasis on construction methods applicable to floor, wall, roof, and/or stair framing. Course content may also include insulation installation and painting.
**17005A000  Particular Topics in Carpentry**

These courses cover specific aspects of building construction or carpentry. All coursework focuses upon a particular skill or set of skills related to one subtopic, such as floor framing, wall and partition framing, interior finishing, or exterior finishing.

**17005A001  Drywall Installation I  CTE Course**

This course provides experiences related to the fastening of drywall panels to the inside framework of residential, commercial, and other buildings, and preparing these panels for painting by taping and finishing joints and imperfections. Planned learning activities allow students to become knowledgeable in fundamental principles and methods. Students develop technical skills related to drywall handling, drywall fastening, drywall taping, and drywall sanding. Instruction includes safety principles and practices, recognition of standard lumber sizes, estimating materials, building concepts and procedures, local state, and national building codes, and blueprint reading.

**17005A002  Drywall Installation II  CTE Course**

This course provides experiences related to the fastening of drywall, Drivit panels and stucco to the interior and exterior framework of residential, commercial, and other buildings, and preparing these panels for painting by taping and finishing joints and imperfections. Planned learning activities allow students to attain knowledge in fundamental principles and methods. Students develop advanced technical skills related to drywall handling, drywall fastening, drywall taping, and drywall sanding. Students are also introduced to the use of Drivit panels and the application of stucco finishes. Instruction includes safety principles and practices, recognition of standard lumber sizes, estimating materials, building concepts and procedures, local, state, and national building codes, and blueprint reading. All learning experiences are designed to allow students to acquire entry-level job skills and knowledge.

**17006A000  Woodworking**

Woodworking courses introduce students to the various kinds of woods used in industry and offer experience in using selected woodworking tools. Students design and construct one or more projects and may prepare a bill of materials. Correct and safe use of tools and equipment is emphasized. As students advance, they focus on learning the terminology necessary to use power tools successfully, developing skills to safely use these tools in the workshop and becoming familiar with various kinds of wood-finishing materials. Advanced students typically design a project, prepare bills of materials, construct, and finish proposed projects.

**17007A000  Cabinetmaking**

Cabinetmaking courses provide students with experience in constructing cases, cabinets, counters, and other interior woodwork. Students learn to distinguish between various types of furniture construction and their appropriate applications, and how to use various woodworking machines and power tools for cutting and shaping wood. Cabinetmaking courses cover the different methods of joining pieces of wood, how to use mechanical fasteners, and how to attach hardware. Initial topics may resemble those taught in Woodworking courses; more advanced topics may include how to install plastic laminates on surfaces and how to apply spray finishes.

**17007A001  Cabinetmaking & Millwork I  CTE Course**

This course introduces students to the basic design and fabrication of residential cabinetry and custom furniture. The course also exposes students to the millwork and millwright industry. Instruction includes safety practices in using hand tools and power equipment.

**17007A002  Cabinetmaking & Millwork II  CTE Course**

This course provides learning experiences related to the erection, installation, and maintenance of commercial and residential cabinetry, and the repair and maintenance of stationary woodworking machinery. Planned learning activities emphasize the development of more advanced knowledge and skills than those provided in Cabinetmaking and Millwork I. This course provides the student with the knowledge and skills necessary to perform basic cabinetry
construction and how it relates to the manufacturing process. In addition, more advanced woodworking machine maintenance skills are introduced.

17008A000 Masonry
Masonry courses enable students to learn to construct interior and exterior walls, columns, doorways, window openings, fireplaces, chimneys, and foundations from brick and concrete block. Along with other activities, students may mix and spread cement and mortar, read blueprints and plans, and estimate materials needed for a project. Other topics may also include how to layout buildings on footings and how to establish grades using a surveying transit.

17008A001 Masonry I CTE Course
This course introduces students to the development and manufacture of brick and concrete block. Instruction concentrates on learning how to handle the trowel and lay brick to the line accurately. Skills involving the use of additional tools are also introduced at this level, so that students have a working knowledge of a mason's basic tools. In addition, students are introduced to the skills needed for installing ceramic, stone, vinyl and composite flooring as well as ceramic, glass, and stone wall tile.
17008A002 Masonry II CTE Course
This course is designed to build upon the intermediate skills learned in Masonry I. More time on skill development is provided to acquaint students with a wide range of experiences within the trade. Along with the skills already introduced, students continue to improve their speed and efficiency in laying brick and block to the line. Because of the needs of the building industry, greater emphasis is placed on tuck-pointing, cement finishing, and installing glass block windows.

17009A000 Building Maintenance
Building Maintenance courses train students to maintain commercial, industrial, and residential buildings and homes. Instruction is provided in the basic maintenance and repair of air conditioning, heating, plumbing, electrical, and other mechanical systems. Topics covered may include identifying and using hand and power tools safely; installing and repairing floor coverings, walls, and ceilings; installing and repairing doors, windows, screens, and cabinets; applying finishes to prepared surfaces; and repairing roofs, masonry, plumbing, and electrical systems.

17009A001 Building Maintenance I CTE Course
This course includes learning experiences and skills in servicing building systems, repair and maintenance of machinery, maintaining plumbing systems, minor electrical repairs, essential heating ventilation and air conditioning system maintenance, painting, and basic carpentry. These experiences provide students the opportunity to become knowledgeable in a variety of practices and skills associated with all trades necessary to maintain a building’s daily operations that are repair-related. The Building Maintenance I course provides instruction and hands-on activities including the use of test equipment and tools, hand tools, basic electricity, carpentry and masonry skills.

17009A002 Building Maintenance II CTE Course
This course provides learning experiences and skills related to servicing building systems, repairing and maintenance of machinery, maintaining plumbing systems, minor electrical repairs, essential heating ventilation and air conditioning system maintenance, painting and basic carpentry. These experiences provide students the opportunity to become knowledgeable in a variety of practices and skills associated with all trades necessary to maintain a building’s daily operations that are repair-related. Planned learning activities should emphasize the development of more advanced knowledge and skills than those provided in Building Maintenance I. Students are instructed in areas of safety including hand tool, power tool, ladder, scaffolding, and the use of safety harnesses. Additional instruction is provided in drywall installation and repair, maintenance painting, tile setting and repair, and basic masonry repair. Students demonstrate knowledge of technology-related mathematics, reading, writing, vocabulary, blueprint reading, and science as these are integrated throughout the curriculum.

17010A000 Home Maintenance
Home Maintenance courses provide students with knowledge and skills related to devices and systems found in the home. Course content may include electrical wiring, plumbing, window and door repair and installation, wall and floor repair and finishing, furniture repair and finishing, and small appliance repair.

17011A000 Wall Finishings
Wall Finishings courses prepare students to finish exterior or interior surfaces by applying protective coating materials such as paint, lacquer, wallpaper, plaster, or stucco. Course topics may include instruction in making, mixing, and matching paint colors; applying coating with various types of equipment; applying wallpaper; lathing, preparing surfaces, smoothing, and finishing.

17011A001 Wall Finishing I CTE Course
This course provides students with experiences related to the painting and wall covering industry. Introductory experiences consist of finishing both exterior and interior surfaces, mixing, blending, and the proper techniques in applying paints, lacquers, enamels, and varnishes. Students learn to use hand tools in removing old surfaces and
preparing new surfaces. Safety and care in handling materials are emphasized in this course. Skills introduced include safety, preparation of surfaces for painting, wall-coverings, concrete finishing, plaster finishing, finishing surfaces, filling holes and cracks, applying primer, and sealing wood surfaces.

17011A002  Wall Finishing IICTE Course
This course includes planned learning activities that emphasize the development of more advanced knowledge and skills than those provided in Wall Finishing I. Students are instructed in areas of safety that includes hand tool, power tool, ladder, scaffolding and the use of safety harnesses. Students are introduced to skills in areas such as estimating labor materials, selecting and using spraying equipment, finishing surfaces with wall-coverings, maintaining and repairing of structures, inventory of supplies and equipment, determining basic maintenance procedures for tools and equipment, mixing primer, staining wood, and varnishing wood.

17012A000  Upholstering
Upholstering courses prepare students in all aspects of upholstering furniture. Topics covered may include installing, repairing, arranging, and securing the springs, filler, padding and cover materials of chairs, couches and mattresses; cutting, sewing and trimming; cushion filling, tufting, and buttoning; and wood refinishing.
General Construction—Independent Study courses, often conducted with instructors as mentors, enable students to explore construction-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

General Construction—Workplace Experience courses provide work experience in a field related to construction. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Other General Construction courses.

Air Conditioning courses offer students specialized training related to the design, installation, and repair of air conditioning systems for residential and commercial use. These courses may emphasize the theory and design of electrical, electronic, mechanical, and pneumatic control systems used in air conditioning systems; they might also (or instead) focus on procedures used in troubleshooting, servicing, and installing components of air conditioning systems.

Refrigeration courses provide students with exposure to and training in the theories, equipment, and skills needed to design, install, and repair commercial and residential refrigeration systems. Course topics typically include the theory of thermodynamics, measurement of pressures and temperatures, components and common accessories of refrigeration systems, and repair and safety procedures.

Heating courses offer students training specific to the design, installation, and repair of heating systems for residential use. Topics typically include electric, gas, and/or steam systems; ventilation procedures; safety practices; and installation and trouble-shooting techniques.

Air Conditioning/Refrigeration courses enable students to develop the combined skills and knowledge to install, maintain, adjust, and repair both air conditioning and refrigeration systems.

In Air Conditioning, Heating, and Refrigeration courses, students learn the basic principles of these systems, along with how to identify and safely use tools/equipment used in the trade.

These courses synthesize basic and advanced principles in heating, ventilation, and air conditioning and include topics such as air filtration methods, humidity control, and the installation and maintenance of heat pumps, furnaces, and air conditioners. Students also learn about climate control systems; electrical wiring; systems design; sizing, fabricating, and installing ductwork; installing and maintaining climate control systems; and safety.
This course is an introduction to the principles and practices employed in the installation, maintenance, and repair of basic air conditioning and heating systems units. Instruction is provided in safety precautions related to electricity, heating units, rotating machinery, refrigerants, and the use of power tools. Instruction includes basic electrical concepts, circuits, transformers, motors and motor controls, and circuit protection devices. Emphasis is also placed on basic refrigeration principles, gas laws, pressure, fluidics, heat and heat transfer, refrigerants, compressors, and lubrication systems. Activities include experiences in using hand tools, gauges, and test instruments used in cutting, reaming, flaring, swaging, bending, soldering, and brazing copper tubing; evacuating and charging refrigeration systems, and inspecting and testing electrical and air conditioning circuits and component parts.

17056A002 HVAC II CTE Course
This course builds on the foundational skills introduced in HVAC I. Students learn the mechanics and electrical fundamentals needed to work as a HVACR technician. Installation, maintenance, and repair of residential forced air heating systems, alternative energy sources, hydronic heating systems, heat pumps, and air conditioners are taught.
Particular Topics in HVACR

These courses offer students specialized training in aspects or topics that are common to various climate control systems (heating, ventilation, air conditioning, and refrigeration systems); such topics may include electrical components, diagrams and blueprints, welding and soldering techniques, and so on.

Plumbing

Plumbing courses provide students with instruction in installing waste and vent systems, water and gas pipes, trim, and fixtures. Skills taught include cutting and joining various types of pipe (for instance, steel, plastic) using various methods (cement, seat method, and so on).

Plumbing I CTE Course

This course is an introductory level course designed to acquaint students with the basics of plumbing. Tasks introduced in this course include classroom safety, estimating the costs of jobs, joining copper tubing and strip pipes, installing hangars and supports, roughing in water supply lines for bathtubs, water closets, and water heaters, maintaining plumbing systems, using manuals to determine maintenance schedules, brazing pipes, joining pipes of dissimilar material with a variety of couplings, building water distribution line, and installing vents and drains.

Plumbing II CTE Course

Planned learning activities emphasize the development of more advanced knowledge and skills than those provided in Plumbing I. This course provides more time for skill development and to acquaint the student with the requirements of an entry-level position as a plumber. Skills introduced include using manuals to determine maintenance schedules, brazing pipes, joining pipes of dissimilar material with a variety of couplings, installing hangars and supports, building water distribution lines and installing vents and drains.

Plumbing and Heating

Plumbing and Heating courses address the installation, assembly, maintenance, and repair of piping, plumbing, heating equipment, and water and drainage systems. Topics covered include the computation of heat losses and BTU requirements and blueprint reading. Students gain experience with electric, gas, and oil furnaces; vacuum pumps; air compressors; and mechanical and pneumatic testing equipment.

Air Conditioning, Heating and Plumbing—Independent Study

Air Conditioning, Heating, and Plumbing—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to air conditioning, heating and plumbing. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Air Conditioning, Heating and Plumbing—Workplace Experience

Air Conditioning, Heating, and Plumbing—Workplace Experience courses provide work experience in a field related to air conditioning, heating, and/or plumbing. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Air Conditioning, Heating and Plumbing—Other

Other Air Conditioning, Heating and Plumbing courses.

Exploration of Electricity/Electronics

Exploration of Electricity/Electronics courses offer instruction in the theory of electricity and in the terminology, skills, and safety procedures common to careers involving electricity and electronics. Topics include (but are not limited to)
Ohm’s law, electrical equipment, wire systems, and so on; career exploration is often (but not always) an integral part of these courses.

**17102A000  Electricity—Comprehensive**

Electricity—Comprehensive courses provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in the electrical field. These courses typically include AC and DC circuitry, safety, and the National Electrical Code and may cover such skills as those involved in building circuits; wiring residential, commercial, and/or industrial buildings; installing lighting, power circuits, and cables; and estimating job costs. As students progress, their projects become more complex and expansive. In these courses, safety is stressed, and a career exploration component may be offered.
17102A001 Electrical Systems I CTE Course
This course provides experiences that prepare students to apply technical knowledge and skills to install indoor and outdoor residential, commercial, and industrial electrical systems and associated power transmission lines. The program includes instruction in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance, and applicable codes and standards. Specific program content includes but is not limited to electrical wiring, industrial hydraulics, introduction to pneumatic technology, understanding of local and national electrical codes, basic power transmission, and an introduction to motor controls.

17102A002 Electrical Systems II CTE Course
This course builds on the concepts and skills introduced in Electrical Systems I. It provides experiences that prepare students to apply technical knowledge and skills to install indoor and outdoor residential, commercial, and industrial electrical systems, and associated power transmission lines. The program includes instruction in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance, and applicable codes and standards. Content in this course includes program controls, industrial program controls, and quality assurance.

17102A003 Electrical Trades I CTE Course
This course is designed to provide students with instruction and training in areas that prepare them to enter the electrical trades. Areas of instruction include electrical theory, circuit design and operation, the national electrical code, blue print reading, construction blue print interpretation, and test equipment usage. Students plan and organize wiring tasks, and gain practical experience by wiring mock-ups and trainers. Students become familiar with tools, materials, and methods used in residential wiring. Students troubleshoot circuits for faulty operation and make repairs. Specific studies include AC and DC theory, series and parallel circuits, motor and generator theory, motor controls, lighting and appliance wiring, low voltage wiring, and testing and repair.

17102A004 Electrical Trades II CTE Course
This course is a continuation of Electrical Trades I, advancing the basics learned in the first course. The study centers around advancing basic theory, multi-phase electricity, transmission and delivery systems, electronic and advanced motor controls, alarm and sensory systems, light commercial and industrial wiring, and advanced circuit design. Students continue to gain practical skill by working on trainers, mock-ups, and on-the-job projects.

17103A000 Residential Wiring
Covering many of the same topics as Electricity—Comprehensive courses, Residential Wiring courses apply the knowledge and skills that students acquire to the electrical systems found in family dwellings. Because these courses emphasize residential electricity, topics may also include cable installation, telephone systems, and the installation of lighting fixtures, outlets, and so on. Maintenance and repair skills are often included as course topics.

17104A000 Industrial Electricity
Covering many of the same topics as Electricity—Comprehensive courses, Industrial Electricity courses apply the knowledge and skills that students acquire to the electrical systems used in industry. Because of this emphasis, these courses may also cover the installation of transformers and control devices, emergency generator systems, and other industrial applications.

17104A001 Industrial Electronics I CTE Course
This course introduces students to the skills needed to service, repair, and replace a wide range of equipment associated with automated or instrument-controlled manufacturing processes. Planned learning activities in this course allow students to become more knowledgeable in the fundamental principles and theories of electrical/electronic and hydraulic/pneumatic equipment as applied to instrumentation devices and digitally encoded radio equipment. Instruction also includes safety principles and practices, semi-conductors and transistor theory,
electrical parameters and circuits, electronic component function and identification, and the use and care of related hand tools, power tools, and test equipment.

**17104A002 Industrial Electronics II CTE Course**

This course provides planned learning activities designed to allow students to gain knowledge and skills in testing, maintaining, and repairing electronic equipment and systems used in the manufacturing industry. Learning activities in this course emphasize the development of more advanced knowledge and skills than those provided in Industrial Electronics I. Skills introduced in this course include instruction in the interpretation of technical sketches, schematics, and circuit diagrams. Additional units of instruction include the identification and causes of equipment malfunctions, the repair and replacement of parts and equipment, the care and use of standard tools, equipment, and specialized instrumentation testing devices.
17105A000 Particular Topics in Electricity
These courses provide students with specialized knowledge and help them develop skills in particular topics concerning the nature, behavior, and application of electrical current.

17106A000 Electronics—Comprehensive
Electronics—Comprehensive courses provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in the electronic field as well as typically cover the theory of electricity. Course topics may include AC, DC, analog, and integrated circuitry and solid state and digital devices, amplifiers, and semiconductors. Skills covered may involve the repair, maintenance, and building of electronic equipment such as radios, television sets, and industrial equipment.

17107A000 Particular Topics in Electronics
Individual courses in this category offer specialized training in topics related to electronics such as diodes, transistors, digital techniques, solid-state devices, analog circuits, and microprocessors.

17108A000 Electricity/Electronics—General
Electricity/Electronics—General courses teach fundamental concepts of electricity and electronics, including safety procedures, and may introduce students to the available occupations in electrical and electronic industries. Topics covered typically include components of circuits; reading schematics and diagrams; electricity and electronics as sources of energy; signal transmission; and using equipment common to these occupations, such as ammeters, voltmeters, capacitor checkers, transistor testers, signal generators, and ohmmeters.

17109A000 Particular Topics in Electricity/Electronics
These courses provide instruction in the theory and skills needed in fields involving electricity and electronics and related fields that focus on electrical wiring or electronic signals.

17110A000 Analog and Digital Circuits
In these courses, analog and digital circuits and systems are compared. Topics covered include binary and continuously variable currents and signals (typically in the context of voltage), waveforms, signal loss and distortion, modulation, and signal processing. These courses may also introduce other media, such as sound waves and liquids.

17111A000 Analog Circuits
Analog Circuit courses emphasize currents and voltages that have continuously variable signals and, due to that emphasis, concentrate on signal modulation, transmission and reception, signal loss and distortion, and waveforms. These courses may also address conversion techniques.

17112A000 Digital Circuits
Digital Circuit courses emphasize currents and voltages that have binary states and, due to that emphasis, concentrate on transmission and reception of binary data, signal loss, and processing circuitry. These courses may also address conversion techniques.

17147A000 Electricity/Electronics—Independent Study
Electricity/Electronics—Independent Study courses, often conducted with instructors as mentors, enable students to explore electricity- or electronics-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
17148A000 Electricity/Electronics—Workplace Experience
Electricity/Electronics—Workplace Experience courses provide students with work experience in a field related to electricity and/or electronics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

17149A000 Electricity/Electronics—Other
Other Electricity/Electronics courses.
**Architecture and Construction—Aide**

Architecture and Construction—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

**Architecture and Construction—Independent study**

Architecture and Construction—Independent Study courses, often conducted with instructors as mentors, enable students to explore architecture and construction-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

**Architecture and Construction—Workplace Experience**

Architecture and Construction—Workplace Experience courses provide students with work experience in a field related to architecture or construction. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**Architecture and Construction—Other**

Other Architecture and Construction courses.
18 Agriculture and Natural Resources

18001A000 Introduction to Agriculture and Natural Resources
Introduction to Agriculture courses survey a wide array of topics within the agricultural industry, exposing students to the many and varied types of agriculture and livestock career opportunities and to those in related fields (such as natural resources). These courses serve to introduce students to the agricultural field, providing them an opportunity to identify an area for continued study or to determine that their interest lies elsewhere. They often focus on developing communication skills, business principles, and leadership skills.

18001A001 Introduction to the Agricultural Industry CTE Course
This course provides an opportunity for students to learn how the agricultural industry is organized; its major components; the economic influence of agriculture at state, national and international levels; and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, soil science, horticulture, natural resources, agribusiness management, and agricultural mechanics, will be presented. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18002A000 Agriculture—Comprehensive
Agriculture—Comprehensive courses cover a wide range of agricultural topics, including plant and animal science, production, and processing; agricultural mechanics, including tool and machine operation and repair; construction and repair of farm structures; business operations and management; and the careers available in the agricultural industry. They may also include topics such as chemical and soil science, ecology, agricultural marketing, and veterinary science.

18003A000 Agriculture and Natural Resources—Comprehensive
Agriculture and Natural Resources—Comprehensive courses cover a wide range of topics concerning agriculture and natural resources, including plant and animal science, production, and processing; environmental science and conservation; ecology; agricultural mechanics; agricultural construction; business operations and management; and the careers available in the agricultural/natural resources industry. They may also include topics such as chemical and soil science, forestry, agricultural marketing, and veterinary science.

18003A001 Basic Agricultural Science CTE Course
This course builds on basic skills and knowledge gained in the Introduction to the Agricultural Industry course. Major units of instruction include agricultural research, soil science, advanced plant science, biotechnology, advanced animal science. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18051A000 Plant Production/Science
Plant Production/Science courses provide knowledge about the propagation of plants for food and fiber. These courses may cover such topics as soil science, irrigation, pest and weed control, food and fiber processing, and farm operations. They may also cover the knowledge and skills needed to produce all types of crops or may emphasize a particular area of the agricultural industry.

18051A001 Horticultural Production & Management CTE Course
This course offers instruction in both the greenhouse production and landscape areas of horticulture. Units of study include plant identification, greenhouse management, growing greenhouse crops, landscape design, installation, and
maintenance, horticulture mechanics, nursery management, and turf production. Agribusiness units will cover operating a horticultural business, pricing work, advertising, and sales. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18051A002 Biological Science Applications in Agriculture – Plants CTE Course
This course is designed to reinforce and extend students understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Students will examine major phases of plant growth and management in agriculture and the specific biological science concepts that govern management decisions. Topics of study are in the areas of initiating plant growth – germination, plant sensory mechanisms, enzyme action, absorption, and managing plant growth – photosynthesis, respiration, translocation, metabolism, and growth regulation. The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.
18052A000  General Horticulture
General Horticulture courses expose students to the art and science of growing plants, shrubs, trees, flowers, fruits, and vegetables. In doing so, they cover a wide variety of topics, including greenhouse and nursery operations, soils and media mixtures, fruit and vegetable production, turf/golf course management, interior and exterior plantscaping, irrigation systems, weed and pest control, and floral design.

18052A001  Basic Horticultural Science  
CTE Course
This course is designed to introduce students to the horticulture industry and provide them with basic plant science knowledge that can be further developed in advanced horticulture courses. Major units of instruction include horticulture research, horticultural careers, plant anatomy, seed germination, plant propagation, growing media, pest management, hydroponics, identifying horticultural plants, growing greenhouse crops, and floral design. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18053A000  Ornamental Horticulture
Similar to General Horticulture, Ornamental Horticulture courses provide information regarding the care and propagation of plants, flowers, trees, and shrubs, but place a special emphasis on those used for decorative and aesthetic purposes. Because of this particular emphasis, Ornamental Horticulture courses usually concentrate on nurseries and greenhouses and on the floristry industry.

18053A001  Greenhouse Production & Floral Design  
CTE Course
This course focuses on the greenhouse management, floral design and related segments of the horticulture industry. Major units of study include floriculture plant identification, greenhouse structures, and the culture of greenhouse crops. Also included are care and handling of cut flowers, principles of art applied to floral design, and the mechanics of floral design. Agribusiness units will be introduced in merchandising, advertising, sales, and operating a retail floral business. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18054A000  Turf and Landscape Management
Turf and Landscape Management courses provide instruction that incorporates plant science, soil and media mixtures, plant identification and optimal environments, and landscape design. These courses emphasize applying such knowledge and skill to the design, establishment, and maintenance of lawns, parks, open space, and similar environments.

18054A001  Landscaping & Turf Management  
CTE Course
This advanced course focuses on the landscape, nursery, and turf segments of the horticulture industry. Units of student instruction include: identifying landscape plants, designing landscape plans, hardscape construction techniques, and installing landscape plants. Also included are nursery production, turfgrass production, small engine repair, and maintenance of existing landscapes. Agribusiness units will cover calculating prices for work, managing a horticulture business, advertising, and sales. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18055A000  Soil Science
Soil Science courses involve the study of soil properties, including soil chemistry, biology, fertility, mineralogy, and hydrology. Topics covered may also include soil conservation, irrigation, and management.
18056A000  Particular Topics in Plant Systems
These courses examine specific topics related to Plant Systems, such as floral design, hydroponics, or landscaping, rather than provide a general study of plant systems or horticulture.

18097A000  Plant Systems—Independent Study
Courses in Plant Systems—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to plant systems. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
18098A000  Plant Systems—Workplace Experience
Plant Systems—Workplace Experience courses provide work experience in fields related to plant systems (care, propagation, and processing). Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

18099A000  Plant Systems—Other
Other Plant Systems courses.

18101A000  Animal Production/Science
Animal Production/Science courses impart information about the care and management of domestic and farm animals. These courses may cover animal nutrition, health, behavior, selection, reproduction, anatomy and physiology, facilities, product processing, and marketing. Students may study a particular species (swine, cattle, horses, fowl, sheep, and so on), or they may learn how to care for and maintain livestock as a more inclusive study.

18101A001  Biological Science Applications in Agriculture – Animals CTE Course
This course is designed to reinforce and extend students understanding of science by associating scientific principles and concepts with relevant applications in agriculture. Students will examine major phases of animal agriculture and specific biological science concepts that govern management decisions in the animal industry. Topics of study are in the areas of growth and development of animals — embryology, ethology, nutrition, immunity systems, and processing animal products — preservation, fermentation, and pasteurization. The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18102A000  Small Animal Care
Small Animal Care courses focus on the care and management of small animals. Animal nutrition, health, behavior, reproduction and breeding, anatomy and physiology, facilities, handling and training, and grooming are typical areas of study. Course topics may include kennel operations and sales.

18103A000  Large Animal Care
Large Animal Care courses focus on the care and management of large animals. Animal nutrition, health, behavior, reproduction and breeding, anatomy and physiology, facilities, handling and training, and grooming are typical areas of study. Course topics may include product processing and marketing.

18104A000  Equine Science
Equine Science courses focus on the care and management of horses. Animal nutrition, health, behavior, reproduction and breeding, anatomy and physiology, facilities, handling and training, and grooming are typical areas of study.

18105A000  Veterinary Science
Veterinary Science courses impart information about the causes, diagnosis, and treatment of diseases and injuries of animals, typically emphasizing domestic and farm animals. Course topics focus on anatomy and physiology, nutrition, behavior, and reproduction, but may also include other areas of study as appropriate.

18105A001  Veterinary Technology CTE Course
This course will develop students’ understanding of the small and companion animal industry, animal anatomy and
physiology, animal ethics and welfare issues, animal health, veterinary medicine, veterinary office practices, and animal services to humans. Career exploration will focus on veterinarian, veterinary lab technicians, office lab assistant, small animal production, research lab assistant, and animal nutrition lab technician. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

**18106A000 Particular Topics in Animal Systems**

These courses examine specific topics related to animal care and management, production, or processing, such as equine training or animal waste management, rather than provide a general study of animal care and the systems related to their growth and management.
Animal Systems—Independent Study
Courses in Animal Systems—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to animal systems. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Animal Systems—Workplace Experience
Animal Systems—Workplace Experience courses provide work experience in fields related to animal systems (management, care, and/or processing). Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Animal Systems—Other
Other Animal Systems courses.

Agribusiness Management
Agribusiness Management courses provide students with the information and skills necessary for success in agribusiness and in operating entrepreneurial ventures in the agricultural industry. These courses may cover topics such as economic principles, budgeting, risk management, finance, business law, marketing and promotion strategies, insurance, and resource management. Other possible topics include developing a business plan, employee/employer relations, problem-solving and decision-making, commodities, and building leadership skills. These courses may also incorporate a survey of the careers within the agricultural industry.

Agricultural Business Management CTE Course
This course will provide students with the basic knowledge and skills necessary to manage personal finances and develop into a successful entrepreneur and/or businessperson. Instructional units include: business ownership types, starting an agribusiness, managing and operating an agribusiness, financing an agribusiness, managing personal finances, record keeping and financial management of an agribusiness, local, state, and federal taxes, agricultural law, and developing employability skills. Student skills will be enhanced in math, reading comprehension, and writing through agribusiness applications. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Agricultural Entrepreneurship
Agricultural Entrepreneurship courses focus on the personal skills necessary for success in entrepreneurial ventures in the agricultural industry. Topics include setting goals, assessing and solving problems, evaluating financial progress and success, business planning, information management and evaluation, and recordkeeping.

Agricultural Sales and Marketing CTE Course
This course is designed to develop student knowledge and skills in agricultural sales and marketing, commodity marketing, agricultural economics, and international agriculture. Instructional units include: successfully starting an agribusiness, developing a marketing plan, pricing, advertising, and selling products and services, communicating with customers, applying commodity trading techniques, basic economic principles, the international agribusiness economy, and agricultural career opportunities. Student skills will be enhanced in math, reading comprehension, communications, and writing through agribusiness applications. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.
18203A000   Agricultural Leadership
Agricultural Leadership courses help students develop leadership skills with a focus on opportunities in the food, fiber, and natural resources industries. Topics may include but are not limited to human relationships and effective communication, decision-making and problem-solving, leadership qualities and styles, and ensuring successful completion of group activities.

18203A002   Agricultural Communications   CTE Course
Students will analyze current agricultural issues and determine how they affect people on all sides of the issue. The students then learn and enhance their written and oral communication skills by presenting their views and opinions to the class. Students learn how to arrange and present debates, speeches, and interviews to be effective leaders in today’s society. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.
Particular Topics in Agribusiness

These courses examine specific topics related to Agribusiness, such as international agriculture or commodities, rather than provide a general study of agribusiness principles.

Agribusiness—Independent Study

Courses in Agribusiness—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to agribusiness. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Agribusiness—Workplace Experience

Agribusiness—Workplace Experience courses provide work experience in fields related to agribusiness. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Agribusiness—Other

Other Agribusiness Courses

Agricultural Production

Agricultural Production courses combine content related to animal and plant production, providing comprehensive coverage of the production functions of the agricultural industry. These courses typically cover such topics as care and management of farm animals, crop production and harvesting, plant and animal insect and disease control, efficient resource management, and farm management.

Agricultural Processing

Agricultural Processing courses impart the knowledge and skills needed to bring animal and plant products to market. They may cover a wide variety of topics, including care and maintenance of animals or plants, quality selection and preservation, equipment care and sanitation, government regulations, and marketing and consumer trends. Agricultural Processing courses may present an overview of agricultural processing or may specialize in particular types of products.

Plant Processing

Plant Processing courses impart the knowledge and skills needed to bring plant products to market. They may cover a wide variety of topics, including plant production, quality selection and preservation, equipment care and sanitation, government regulations, and marketing and consumer trends. Plant Processing courses may present an overview of product processing or may specialize in specific plant products.

Animal Processing

Animal Processing courses impart the knowledge and skills needed to bring animal products to market. Although these courses may present an overview of animal care and maintenance, they typically emphasize quality selection, product preservation, equipment care and sanitation, government regulations, and marketing and consumer trends. Animal Processing courses may present an overview of several types of animal products or may specialize in particular products, such as meat, leather, wool, dairy products, and so on.

Food Product Processing

Food Product Processing courses impart the knowledge and skills needed to produce and manufacture food products for the consumer market. These courses focus on food products while covering a variety of topics, such as
quality selection and preservation, equipment care and sanitation, government regulations, marketing, consumer
trends, and product research and development.

18305A001  Food Science Technology  CTE Course
This course provides learning experiences in food science and safety which allow students to apply scientific
knowledge and processes to practices used in the development and preservation of food products. Issues of food
science and safety are examined from a scientific and technological perspective. Students critically analyze
information to evaluate and draw conclusions on the appropriate use of technology to implement food science and
safety practices. Units of instruction include: principles of food preservation, food processing, biochemistry of foods,
and food selection and consumer health. Careers to be examined include meat inspector, quality control technician,
food processor, and sanitation supervisor. Students will use scientific and technological information about food
science and safety as a part of developing career plans and personal viewpoints on societal issues concerning the
development and preservation of food products. Improving computer and workplace skills will be a focus.
Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an
integral course component for leadership development, career exploration and reinforcement of academic concepts.
18306A000  Aquaculture
Aquaculture courses impart the knowledge and skills needed for producing fish, plants, and other species living in an aquatic environment, and course topics typically include the selection, propagation, harvesting, and marketing of those species. Instruction may also address aquatic and marine biology, ecosystems, water quality and management, and business practices.

18306A001  Aquacultural Science and Technology  CTE Course
This course is designed to develop student knowledge and skills in the area of aquacultural science and technology. Instructional units include basic studies of aquacultural species; reproduction processes, genetics, nutrition and health in aquacrops; ecological balances; and environmental requirements of aquatic plants and animals. Water quality, chemical and temperature analyses will be conducted for a variety of aquacrops. Individual and group experimentation and student research project(s) are required for satisfactory completion of this course. Careers to be examined include fish hatchery technician, production manager, fish nutritionist, and researcher. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18307A000  Agriculture and Society
Agriculture and Society courses provide an overview of the importance of, impact on, and relationships between agricultural endeavors and society at large. These courses typically emphasize economic and environmental factors and impacts (such as urban and agricultural water use) and the influences of society on agricultural endeavors (including production, processing, and distribution). Current technological advances (such as genetic engineering) may also be discussed.

18308A000  Agricultural Biotechnology
Agricultural Biotechnology courses apply biological principles and understanding to plant and animal science in order to produce or refine agricultural products. Course topics typically include but are not limited to microbiology, genetics, growth and reproduction, structural basis of function in living systems, chemistry of living systems, quantitative problem-solving, and data acquisition and display. These courses also often cover the ethics of biotechnology.

18308A001  Agricultural Biotechnology  CTE Course
This course examines the agricultural applications of biotechnology, the use of living organisms to solve problems or make useful products. Applications include technologies used in bioprocessing, cell/tissue culture, genetic and protein engineering. Specific units of instruction include: impacts of biotechnology, genetics, and biotechnology in plant, animal, and microbial science. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

18309A000  Particular Topics in Agricultural Production/Processing
These courses examine specific topics related to producing and processing agricultural products (such as meat cutting) rather than provide a general study of production or processing.

18347A000  Agricultural Production and Processing—Independent Study
Courses in Agricultural Production and Processing—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to agricultural production and processing. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

18348A000  Agricultural Production and Processing—Workplace Experience
Agricultural Production and Processing—Workplace Experience courses provide students with work experience in fields related to agricultural production and processing. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

18349A000  Agricultural Production and Processing—Other
Other Agricultural Production and Processing courses.
Agriculture Mechanics/Equipment/Structures courses provide students with the skills and knowledge that are specifically applicable to the tools and equipment used in the agricultural industry. While learning to apply basic industrial knowledge and skills (engine mechanics, power systems, welding, and carpentry, among others), students may explore a broad range of topics, including the operation, mechanics, and care of farm tools and machines; the construction and repair of structures integral to farm operations; a study of electricity and power principles; and safety procedures.

Basic Agricultural Mechanics CTE Course
In this course, theory and hands-on experiences provide opportunities for students to develop basic knowledge and skills in agricultural mechanics. Instructional areas include the basic fundamentals of maintaining and repairing small gasoline engines, basic electricity, welding, construction, cold metal work, and operating agricultural equipment safely. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Agriculture Mechanics and Equipment courses provide students with the engineering and power technology principles, skills, and knowledge that are specifically applicable to the agricultural industry. Typical topics include the operation, maintenance, and repair of power, electrical, hydraulic, and mechanical systems.

Agricultural Mechanics and Technology CTE Course
This course will concentrate on expanding student’s knowledge and experiences with agricultural mechanics technologies utilized in the agricultural industry. Units of instruction included are: design, construction, fabrication, maintenance, welding, electricity/electronics, internal combustion engines, hydraulics, and employability skills. Careers of agricultural construction engineer, electrician, plumber, welder, equipment designer, parts manager, safety inspector, welder, and other related occupations will be examined. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Agriculture Structures courses provide students with the skills and knowledge that are specifically applicable to the construction, maintenance, and repair of structures integral to the agricultural industry, including but not limited to animal enclosures, irrigation systems, and storage facilities. In these courses, students typically study design, planning, and construction knowledge and skills (such as survey, carpentry, plumbing, concrete, and electrical systems), in addition to the safe operation of tools and machines.

Agricultural Construction and Technology CTE Course
This advanced course focuses on the knowledge, hands-on skills, and workplace skills applicable to construction in the agricultural industry. Major units of instruction include: personal safety, hand tools, power tools, blue print reading, surveying, construction skills in carpentry, plumbing, electricity, concrete, block laying, drywall and painting. Careers such as agricultural engineers, carpenter, plumber, electrician, concrete and block layers, finishers, safety specialists, and other related occupations will be examined. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Agriculture Welding courses provide students with the skills and knowledge that are specifically applicable to the
tools and equipment used in the agricultural industry. In learning to apply basic industrial knowledge and skills (engines, power, welding, and carpentry, among others), students may explore a broad range of topics, including the operation, mechanics, and care of farm tools and machines; the construction and repair of structures integral to farm operations; an introduction or review of electricity and power; and safety procedures.

18405A000  **Particular Topics in Agricultural Mechanics and Construction**
These courses examine specific topics related to agricultural mechanics and construction, such as specific vehicles or structures, rather than provide a general study of mechanics and construction techniques.

18447A000  **Agricultural Mechanics and Construction—Independent Study**
Courses in Agricultural Mechanics and Construction—Independent Study, often conducted with instructors as mentors, enable students to topics of interest related to agricultural mechanics and/or construction. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
Agricultural Mechanics and Construction—Workplace Experience courses provide work experience in fields related to agricultural mechanics and construction. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Agricultural Mechanics and Construction—Other courses.

Agricultural Machinery Service CTE Course
This comprehensive machinery service course concentrates on the following areas: using service manuals, electrical applications for agricultural equipment, fundamentals of multi-cylinder engines, reconditioning and repairing agricultural equipment, assembling and adjusting agricultural equipment, organization and management of agricultural machinery dealerships, human relations, and sales techniques. Careers such as agricultural equipment salesperson, mechanic, parts manager, sales manager, service technician, and other related occupations will be examined. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Physical Science Applications in Agriculture I CTE Course
This course is designed to reinforce and extend students understanding of physical science and the scientific process by associating scientific and math principles and concepts with relevant applications in agriculture. Topics of study are in the areas of scientific investigations, environmental/natural resource systems, agricultural production systems, agricultural structural systems, energy and power systems, agricultural mechanics and machine systems, and food processing systems. The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Wildlife Management
Often with an emphasis on the conservation of natural resources and frequently including outdoor recreation topics, Wildlife Management courses provide students with the opportunity to understand and appreciate the importance of maintaining the land and ecological systems that enable nondomesticated animals to thrive. Wildlife Management courses emphasize how humans and animals may both take advantage of the same land or how to gain economic benefits from the land while not degrading its natural resources or depleting plant or animal populations.

Forestry
Forestry courses provide students with the information and experience necessary for the cultivation, management, and care of forests or timberlands. Forestry courses cover topics such as the processes of regeneration and reforestation, harvesting and conservation of natural resources, erosion and pest control, trail development and maintenance, mapping and surveying, operation of forestry tools, government regulations, environmental stewardship, and recreational use of forests.

Forestry Harvesting
Forestry Harvesting courses involve the study of methods to manage, protect, and harvest timber stands and specialty forest crops; equipment maintenance and repair; the selection, planting, transplanting, and harvesting of trees; forest management; and safety procedures.
Natural Resources Management courses combine the fields of ecology and conservation with planning for the efficient use and preservation of land, water, wildlife, and forests. Within the general area of natural resources management, these courses usually cover specific topics and uses, such as hunting or fishing preserves, forest production and management, wildlife preservation, and human outdoor recreation.

Environmental Science CTE Course
This course examines the relationship of agriculture and the environment. The impact of plant and animal production practices on the environment and the adoption of practices leading to improved air, land, and water quality are investigated. Areas of emphasis include: types of ecosystems, management of waste, chemical use, soil conservation, land uses and regulations, and water and air quality. Encouraging students to be conscious and concerned about the environment and recognizing the need to conserve the environment and its resources will be a theme throughout. Careers of environmental technicians, soil and water conservationists, monitoring field technicians, land surveyor, and related occupations will be examined. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Natural Resources Conservation and Management CTE Course
This course develops management and conservation skills in understanding the connection between agriculture and natural resources. Student knowledge and skills are developed in: understanding natural resources and its importance; fish, wildlife, and forestry management and conservation; and exploring outdoor recreational enterprises. Hunting and fishing as a sport, growing and managing tree forests, and outdoor safety education will be featured. Career exploration will be discussed including: park ranger, game warden, campground manager, forester, conservation officer, wildlife manager, and related occupations. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Particular Topics in Natural Resources
These courses examine specific topics related to natural resources, such as urban forestry or hunter education, rather than provide a general study of natural resource principles and topics.

Natural Resources—Independent Study
Courses in Natural Resources—Independent Study, often conducted with instructors as mentors, enable students to explore topics of interest related to natural resources. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Natural Resources—Workplace Experience
Natural Resources—Workplace Experience courses provide students with work experience in fields related to natural resources. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Natural Resources—Other
Other Natural Resources courses.

Agriculture, Food, and Natural Resources—Aide
Agriculture, Food, and Natural Resources—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

18997A000 Agriculture, Food, and Natural Resources—Independent Study
Courses in Agriculture, Food, and Natural Resources—Independent Study, often conducted with instructors as mentors, enable students to explore topic of interest related to agriculture, food, and natural resources. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

18998A000 Agriculture, Food, and Natural Resources—Workplace Experience
Agriculture, Food, and Natural Resources—Workplace Experience courses provide students with work experience in fields related to agriculture, food, and natural resources. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.
Agricultural Cooperative Education is designed for junior and senior students interested in pursuing careers in Agriculture. Students are released from school for their paid cooperative education work experience. They participate in 200 minutes per week of related classroom instruction focusing on job survival skills, career exploration skills related to the job, and human relations skills. A qualified agricultural instructor is responsible for supervision and is given 30 minutes per student per week to do so. Written training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator. The coordinator, student and employer assume compliance with federal, state and local laws and regulations. The coordinator also needs to have taken 6 semester hours of organization and administration of cooperative education. The course content includes the following broad areas of emphasis: further career education opportunities, planning for the future, job seeking skills, personal development, human relationship, legal protection and responsibilities, economics of the job, organization and job termination. (NOTE: In schools with insufficient numbers to justify a stand alone Agricultural Cooperative Education course, Interrelated Cooperative Education with the same general requirements may be substituted.)

Supervised Agricultural Experiences

This course is designed to establish, improve, and/or expand knowledge and skills in various agricultural careers. Students will gain credit by establishing or continuing a Supervised Agricultural Experience (SAE) project at their home, at a business, or at their school often occurring outside the normal school day. SAE projects are typically entrepreneurial, placement or research based. Students are encouraged to add additional projects, experiences, scope, and growth involving managerial and decision making skills. Students will be required to verify their experiences by keeping written or computerized records including: business agreements, budgets, inventories, daily activities, hours worked, income and expenses, total earnings, depreciation, and net worth. Instructor supervision will be conducted to the student’s home, place of employment, or location of project. SAE records should be evaluated at least once per month. In addition, classroom time may be incorporated for foundational knowledge related to the SAE. SAE lessons are integrated into each agricultural course which can also provide foundational knowledge. SAE participation can lead to fulltime employment, scholarships, and awards through the FFA.

Other Agriculture, Food, and Natural Resources courses.
19 Human Services

19001A000 Human Services Career Exploration
Human Services Career Exploration courses introduce and expose students to the career opportunities pertaining to the provision of personal and consumer services for other human beings. Course topics vary and may include (but are not limited to) caring for others, education, cosmetology, entrepreneurship, labor laws, and customer service. Course activities depend upon the careers being explored.

19051A000 Child Care
Child Care courses provide students with knowledge about the physical, mental, emotional, and social growth and development of children from birth through childhood. Main topics include the fundamentals of working with infants, toddlers, and older children; providing healthy environments; evaluating child care settings; and the practices, regulations, and opportunities in the child care industry. Often, Child Care courses provide students with practical experience in a child care center. Advanced topics may include various learning theories; development of activities; operation of a child care center; recognition of childhood diseases, abuse, and neglect; and first aid/emergency training.

19052A000 Child Development
Child Development classes provide students with knowledge about the physical, mental, emotional, and social growth and development of children from conception to pre-school age, emphasizing the application of this knowledge in child care settings. These courses typically include related topics such as the appropriate care of infants, toddlers, and young children.

19052A001 Child Development and Parenting CTE Course
Child Development and Parenting addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The focus is on research-based nurturing and parenting practices and skills, including brain development research, that support positive development of children. Students will explore opportunities in human services and education-related careers and develop a career portfolio.

19053A000 Elder Care
Elder Care courses emphasize the care of human beings as they grow older. These courses involve the study of the biological, physiological, social, and psychological needs and concerns of the elderly, and deal with the aging process, death, and dying in a realistic manner. Elder Care courses may cover work and personal habits appropriate to the field, and may also offer the opportunity to explore various careers.

19053A001 Human Development and Family Wellness CTE Course
This course focuses on the development and wellness of individuals and families throughout the life cycle. Topics include human development and wellness theories, principles, and practices; life cycle expectations and issues, including biological, physiological, social, and psychological needs and concerns of aging adults; community services, agencies, and resources; roles, responsibilities, and functions of families, family members and caregivers; family issues, including ethics, human worth and dignity, change, stress, neglect and abuse, and care of the caregiver; individual and family wellness planning; and fostering intergenerational relationships. Practical experiences related to these topics are included through a variety of activities such as volunteer experiences, service learning, and intergenerational event planning opportunities. Information on a variety of human and family services careers is incorporated throughout the course.

19054A000 Caregiving Service
Caregiving Service courses emphasize the care of human beings who are unable or who need assistance to care for
themselves. These courses involve the study of the biological, physiological, social, and psychological needs and concerns of young children, the elderly, and/or the disabled. Additional topics may include planning daily routines; appropriate environments and activities; growth and aging processes; and techniques for managing a center or working in others’ homes.

19054A001  Care and Learning Services Occupations  
CTE Course

This course provides students with information and practical experiences needed for the development of competencies related to child/adult care, day care, and other education services occupations. Laboratory experiences, either in a school-based or worksite learning facility, are included throughout the class. Students meet standards in developing programs and assisting with children’s and/or adult’s activities. Classroom study includes the philosophy and management of care centers and the state and local regulations governing care-giving operations. The learning experiences will involve working with children/adults simulating those found in business and industry, as well as preparation for developing and facilitating these activities.

19055A000  Particular Topics in Child and Elder Care

These courses examine specific topics related to child and elder care, such as regulations of the industry or caring for people with special needs, rather than providing a general study of child and elder care.
19055A001  Care and Learning Services Management CTE Course
This course emphasizes the skills associated with the administration of the infant, child and adult care facilities and education centers. Skills, strategies and issues related to caring for infants and special needs children and adults, where applicable, are included. Emphasis is placed on career opportunities, communication skills, human relations and the service needs of clients in the occupational area. The major learning experiences will involve actual work with children and/or adults in facilities simulating those found in the workplace/industry, and discussion of the situations and problems that arise during the learning experiences. State licensing and certification requirements and regulations related to all-aspects of care and education are stressed throughout the course. Careers in the occupational area will be investigated, including entrepreneurship.

19097A000  Child and Elder Care—Independent Study
Child and Elder Care—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to child and elder care. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

19098A000  Child and Elder Care—Workplace Experience
Child and Elder Care—Workplace Experience courses provide students with work experience in fields related to caring for others. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

19099A000  Child and Elder Care—Other
Other Child and Elder Care courses.

19101A000  Cosmetology—Licensing
Cosmetology—Licensing courses provide students with the knowledge and skills applicable to the care of hair, skin, and nails, and prepare students for the state’s Board of Cosmetology examinations. Almost always a series of courses with a specified number of instructional hours, Cosmetology—Licensing courses also require applied experience. Course content covers such topics as human anatomy and skin conditions, chemistry and bacteriology, sanitation and sterilization, state laws and regulations, and shop management. These courses provide students with experiences in shampooing, cutting, styling, bleaching, coloring, tinting, waving, and relaxing hair and providing facials and manicures.

19101A001  Cosmetology I CTE Course
The Cosmetology program must be approved and licensed by the Illinois Department of Financial and Professional Regulations, Division of Professional Regulation and meet all state and federal regulations. Cosmetology I provides introduces students to the requirements to become a licensed cosmetologist. It offers students instruction in both theory and practical application in the following areas: tools and their use, shampoo, understanding chemicals and use, types of hair, sanitation, hygiene, skin diseases and conditions, anatomy and physiology, electricity, ethics, nail technology and esthetics as they relate to the Barber, Cosmetology, Esthetics, and Nail Technology Act. Knowledge, skills, and activities completed in this course will help prepare students for Cosmetology II, while earning hours towards licensure.

19101A002  Cosmetology II CTE Course
The Cosmetology program must be approved and licensed by the Illinois Department of Financial and Professional Regulations, Division of Professional Regulation and meet all state and federal regulations. Cosmetology II will build upon the knowledge and skills attained in Cosmetology I and will provide instruction, which may be a combination of classroom instruction and hands on experience in the following areas: practical chemical application/hair treatment,
hair styling/hair dressing, and shop management, sanitation and interpersonal relations as they relate to the Barber, Cosmetology, Esthetics, and Nail Technology Act, as well as labor and compensation laws. Instruction may also include instruction in nail technology, esthetics, individualized skill development, and career planning. This course offers a curriculum of advanced theoretical and practical skill development to prepare students for the cosmetology licensure examination and progression to obtain the 1500 hours of study in cosmetology.

**19102A000 Barbering**
Barbering courses provide students with the skills and experience to shave, style, and trim mustaches and beards and to cut, shampoo, and style hair. Course topics include hygiene, skin and scalp disease, and use of equipment. Barbering courses may aim to prepare students for the state’s licensing examinations, and may include topics similar to those included in Cosmetology courses.
19102A001 Barbering I CTE Course
This is the first year of a two year program in Barbering. The barbering program must be approved and licensed by the Illinois Department of Financial and Professional Regulations, Division of Professional Regulation and meet all state and federal regulations. This course offers students curriculum in both theory and practice in the following areas as they relate to the practice of barber science and art: anatomy; physiology; skin diseases; hygiene and sanitation; barber history; barber law; hair cutting and styling; shaving, shampooing, and permanent waving; massaging; and barber implements as they relate to the Barber, Cosmetology, Esthetics, and Nail Technology Act. Knowledge, skills, and activities completed in this course will help prepare students for Barbering II, while earning hours towards licensure.

19102A002 Barbering II CTE Course
This is the second year of a two year program in Barbering. The barbering program must be approved and licensed by the Illinois Department of Financial and Professional Regulations, Division of Professional Regulation and meet all state and federal regulations. It offers advanced theoretical and practical skill development to prepare students for the barbering license exam. Training will cover at a minimum: anatomy; physiology; skin diseases; hygiene and sanitation; barber history; barber law; hair cutting and styling; shaving, shampooing, and permanent waving; massaging; bleaching, tinting, and coloring; and barber implements as they relate to the Barber, Cosmetology, Esthetics, and Nail Technology Act, as well as labor and compensation laws. Knowledge, skills, and activities completed in Barbering I and II will prepare students to take the licensure exam and progression to obtain the 1500 hours of study in barbering.

19103A000 Hair Styling
Hair Styling courses provide students with the skills and experience to cut, shampoo, and style hair. Course topics include hygiene, skin and scalp disease, and use of equipment. These courses provide students with experiences in shampooing, cutting, styling, bleaching, coloring, tinting, waving, and relaxing hair.

19104A000 Cosmetology—Non-licensing
Cosmetology—Non-licensing courses provide students with the knowledge and skills applicable to the care of hair, skin, and nails, but do not necessarily prepare students for the state’s Board of Cosmetology examinations. Students gain experience in hair care, facials, and manicures; course topics usually include human anatomy, sanitation and sterilization, and related chemistry and bacteriology. Shop management and state regulations may also be included.

19105A000 Cosmetology—Nail Specialization
Cosmetology—Nail Specialization courses offer students experience in providing manicures, pedicures, and nail extension treatments. These courses may also include topics such as hygiene, entrepreneurship, human relations, and other related subject matter.

19105A001 Nail Technology I CTE Course
The Nail Technology program must be approved and licensed by the Illinois Department of Financial and Professional Regulations, Division of Professional Regulation and meet all state and federal regulations. Nail Technology offers students curriculum in both general theory and practical application in the following area of basic training: history of nail care, personal hygiene and public health; professional ethics; sterilization and disinfection; bacteriology; disorders of the nails; OSHA standards as relative to MSDS on chemicals, chemicals and their use; and technical applications of chemicals as they relate to the Barber, Cosmetology, Esthetics, and Nail Technology Act. Knowledge, skills, and activities completed in this course will help prepare to become a licensed nail technician, while earning hours towards the 350 hours of instruction in nail technology.

19106A000 Cosmetology—Facial Specialization
Cosmetology—Facial Specialization courses offer students information and experience related to skin care, the
provision of facials, make-up application, and facial massage. These courses may also include topics such as hygiene and sanitation, human anatomy and skin conditions, entrepreneurship, and/or human relations.

19107A000  **Particular Topics in Cosmetology**
These courses examine specific topics related to cosmetology not otherwise described, such as electrolysis, rather than providing a general study.

19147A000  **Cosmetology—Independent Study**
Cosmetology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to cosmetology. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
19148A000  Cosmetology—Workplace Experience
Cosmetology—Workplace Experience courses provide students with work experience in the cosmetology field. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

19149A000  Cosmetology—Other
Other Cosmetology Care courses.

19151A000  Teaching Profession
Teaching Profession courses introduce students to the principles underlying teaching and learning, the responsibilities and duties of teachers, and the techniques of imparting knowledge and information. These courses typically expose students to and train them in classroom management, student behavior, leadership and human relations skills, assessment of student progress, teaching strategies, and various career opportunities in the field of education.

19151A001  Foundations to Teaching  CTE Course
This course introduces students to the principles underlying teaching and learning, responsibilities and duties of teachers, and strategies and techniques to deliver knowledge and information. A combination of classroom and field experiences will enable the student gain skilled knowledge and understanding of the education profession. Course content includes projects to develop an understanding of the learner and the learning process, instructional planning, the learning environment, assessment and instructional strategies, career opportunities in the field of education, and Illinois regulations and licensing requirements.

19152A000  Educational Methodology
Educational Methodology courses prepare students to teach and guide others. These courses typically provide opportunities for students to develop their own teaching objectives, to design lesson plans, and to experience teaching in a controlled environment. Students examine and practice teaching strategies, learning styles, time management and planning strategies, presentation and questioning skills, classroom management, and evaluation techniques.

19152A001  Educational Methodology  CTE Course
This course provides opportunity for students to develop skills to teach and guide others. Coursework includes opportunity for students to create and develop teaching objectives, design lesson plans, and experience teaching in a controlled environment. Students examine and practice teaching strategies, learning styles, time management and planning strategies, presentation and questioning skills, classroom management, and evaluation techniques. Students will explore opportunities in education careers and develop/expand their career portfolio.

19153A000  Early Childhood Education
Early Childhood Education courses address child development, care, and education issues, so that students can guide the development of young children in an educational setting. Study typically includes planning and implementing developmentally appropriate activities, basic health and safety practices, and legal requirements for teaching young children.

19153A001  Early Childhood Education  CTE Course
This course prepares students to guide the development of young children in an educational setting through classroom and job shadowing experiences. Course content includes child development, care, and education issues. Project-based learning experiences include planning and implementing developmentally appropriate activities, basic health and safety practices, and legal requirements of teaching young children. Students will research the
requirements of early childhood education careers and develop/expand their career portfolio.

19154A000  Particular Topics in Education
These courses examine specific topics in education other than those already described, such as management of school-age children, rather than providing a general study of the teaching profession.

19197A000  Education—Independent Study
Education—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to education. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
19198A000  Education—Workplace Experience
Education—Workplace Experience courses provide students with work experience in fields related to education. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

19199A000  Education—Other
Other Education Care courses.

19201A000  Clothing and Textiles
Clothing and Textiles courses introduce students to and expand upon the various aspects of apparel, garment construction, and the textile industry, conveying the commercial application of design principles, production processes, and maintenance techniques. These courses usually address the selection, characteristics, care, and repair of various textiles; operation and care of commercial sewing machines; design, construction, and production of fabrics and/or garments; and career opportunities in the garment or textile industry.

19201A001  Textiles and Design I  CTE Course
This course is designed to provide basic knowledge and understanding of the design, development, and production of textile products. Through hands-on and project-based learning experiences, students will discover fiber characteristics, fabric construction methods, elements of science and design in textiles and apparel, and basic construction skills used in interior furnishings and apparel industries. This course emphasizes awareness and investigation of careers and industry trends in textiles.

19202A000  Clothing/Textile Maintenance
Clothing/Textile Maintenance courses provide students with the knowledge and skills to clean, care for, and maintain clothing and textiles. Course topics typically include dry cleaning and laundering techniques, identifying fabrics and the optimal cleaning agents and processes, instruction in altering and repairing garments, and the safe use of the equipment, tools, and agents.

19203A000  Apparel Construction
Apparel Construction courses provide students with the knowledge and skill to construct, alter, and repair clothing and textile products. Course topics typically include taking measurements, creating and preparing patterns, and various sewing techniques; topics may also include customer service, fashion design principles, and business management. These courses may also offer specialized knowledge in a particular type of garment.

19203A001  Textiles and Design II  CTE Course
This project-based course focuses on the implementation and recognition of design principles in selecting, constructing, altering, and remodeling textile products. Project management skills, including efficient use of time, materials, technique, and tools are incorporated throughout the course. Topics include: engineered fabric constructions; fiber and textile trends; color theory; principles of design; fabric finishes; industry construction techniques; use of industry tools, equipment, and terminology; knowledge of resources and vendors; research and evaluation of textile products for special needs populations; impacts of technology; construction, alteration and re-design skills; and simple flat pattern design and recognition.

19204A000  Apparel and Textile Services
Apparel and Textile Services courses introduce students to and expand upon various services that concern the care and maintenance of apparel, textiles, and furnishing. Course topics may include upholstery, dry cleaning, commercial sewing, and tailoring.
19204A001  Fashion, Apparel, and Textile Services Occupations  

This course prepares students for employment and higher education programs of study related to the broad spectrum of careers encompassed in fashion, apparel, and textile industries. This course provides students with opportunities to: analyze the influences of social, cultural, and environmental diversity in the fashion, apparel, and textile industry; investigate applicable regulatory and policy issues; assess product quality; develop a design portfolio; refine and develop industry skills necessary to employment in fashion, apparel, and/or textiles; model proper safety procedures; communicate with potential customers/clients using industry terminology; perform operational functions; and research current industry employment opportunities, including the investigation of entrepreneurship.
Textile and Design Occupations

The Textile and Design Occupations course focuses on the study and application of functional and aesthetic design, human factors research, production planning, manufacturing processes, quality assessment, and distribution systems of textile products. Additional topics include: consumer and industry textile trends; industry specific terminology; advanced design applications; project development, management, and supervision; safety codes and procedures; portfolio development and presentation; client relationships; and individualized mastery of textile/design skills.

Home Furnishing

Home Furnishing courses provide students with basic knowledge regarding furnishing and decorating home environments. While exploring design principles, personal needs and style, and decision-making, students may also explore the following topics: color, texture, furniture styles and arrangement, lighting, window treatments, floor and wall coverings, and home improvement/modification. Home Furnishing courses may also cover architectural style and design and take a larger look at housing problems or current housing issues.

Home Furnishings Production

Home Furnishings Production courses enable students to plan, select, and construct upholstery, slip covers, draperies and other window treatments, and other home accessories. Some courses may emphasize upholstery exclusively. Course content typically includes proper use of equipment, interior decorating principles, and employability skills.

Facilities Planning and Management Services

This course focuses on strategic workplace and facility planning and prepares individuals to function as facility and event managers and workplace consultants. Instruction includes the following: principles of aesthetic and functional design; environmental psychology and organizational behavior; real estate planning; principles of occupational health and safety; event planning and management; operations management; and applicable regulatory and policy issues.

Particular Topics in Apparel and Furnishings

These courses examine specific topics in apparel and furnishings other than those already described, such as tailoring or shoe repair, rather than providing a general study.

Apparel and Furnishings—Independent Study

Apparel and Furnishings—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to apparel, textiles, and furnishings. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Apparel and Furnishings—Workplace Experience

Apparel and Furnishings—Workplace Experience courses provide students with work experience in fields related to apparel, textiles, and furnishings. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Apparel and Furnishings—Other

Other Apparel and Furnishings Care courses.

Human Services—Aide

Human Services—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.
Human Services—Independent Study

Human Services—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to providing human services. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
**19998A000 Human Services—Workplace Experience**

Human Services—Workplace Experience courses provide students with work experience in a field related to the provision of human services. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**19999A000 Human Services—Other**

Other Human Services Care courses.
20 Transportation, Distribution and Logistics

20001A000 Exploration of Transportation, Distribution and Logistics
Exploration of Transportation, Distribution, and Logistics courses introduce students to careers that involve the planning, management, and movement of people, materials, and products using any of several modes of transport. Such careers may also involve infrastructure, vehicular maintenance and repair, and operating or managing facilities that hold what is being transported. Therefore, specific course topics vary widely and depend upon the careers being explored.

20001A001 Transportation Technology CTE Course
Transportation Technology is a course designed to foster an awareness and understanding of the various transportation customs that make up our mobile society. Through laboratory activities, students are exposed to the technologies of and career opportunities involved in material handling, atmospheric and space transportation, marine transportation, terrestrial transportation, and computer uses in transportation technology.

20051A000 Truck and Bus Driving
Truck and Bus Driving courses instruct students in the proper and safe handling and operation of trucks and buses. Strategies for driving in hazardous conditions, observing laws and regulations, loading cargo or passengers, documenting cargo loads, and expectations of driving careers are all typical course topics.

20052A000 Heavy Equipment Operation
Heavy Equipment Operation courses enable students to safely operate the heavy equipment used for mining, construction, and utility industries. Typically, courses also include light maintenance principles and techniques.

20053A000 Aviation
Aviation courses provide students with an understanding of the science of flight and typically include the history, regulations, and possible career paths within the aviation industry. Aviation courses usually cover physics, the relationships of weight and balance, principles of navigation and flight control, ground and airport operations and services, and Federal Aviation Agency regulations.

20053A001 Aviation/Pilot I CTE Course
This course introduces students to the airplane piloting and the navigation field. Instructional units include principles of flight, the flight environment, aircraft systems and performance, meteorology for pilots, interpreting weather data, and basic navigation.

20053A002 Aviation/Pilot II CTE Course
This course is a continuation of and builds on the skills and concepts introduced in Aviation/Pilot I. This course includes instructional units in radio navigation systems, aviation physiology, flight planning and decision making, aviation history, the nature of space, rockets, and space flight, and careers in aviation and aerospace.

20054A000 Boat Operation
Boat Operation courses typically cover operation and maintenance of marine vehicles, marine navigation, and emergency procedures, as well as other skills necessary or useful for work or life at sea (e.g., loading and unloading or cooking). Specific topics may include docking and undocking a vessel, engine maintenance, commercial fishing, firefighting aboard ship, and CPR.

20097A000 Operation—Independent Study
Operation—Independent Study courses, often conducted with instructors as mentors, enable students to explore
topics of interest related to the operation of vehicles. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

20098A000 Operation—Workplace Experience
Operation—Workplace Experience courses provide students with work experience in fields related to the operation of vehicles. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

20099A000 Operation—Other
Other Operation courses.
Energy/Power courses focus on one or several aspects of energy and power in transportation and work. Course content may include various sources of energy and their use in society (for example, characteristics, availability, conversion, storage, environmental impact, and socioeconomic aspects of various energy sources); principles involved in various means of energy transfer, such as electricity/electronics, hydraulics, pneumatics, heat transfer, and wind/nuclear/solar energies; and the transmission and control of power through mechanical or electrical devices such as motors and engines.

Energy Utilization Technology is a course designed to foster an awareness and understanding of how we use energy in our industrial technological society. Areas of study include conversion of energy, electrical fundamentals, solar energy resources, alternate energy resources such as wind, water, and geothermal, fossil fuels, nuclear power, energy conservation, and computer uses in energy technology. Students use laboratory experiences to become familiar with current energy technologies.

Power and Mechanics courses enable students to understand the principles underlying various kinds of mechanics (aircraft, auto, diesel, and marine) and how energy is converted, transmitted, and controlled. Topics typically include maintaining and servicing machines, engines, and devices while emphasizing energy sources, electricity, and power transmission. The courses may also provide information on career opportunities within the field of mechanics and/or transportation.

Introduction to Automobiles is primarily intended as a personal automobile mechanics course, but also useful for students exploring future careers in automotive technologies. Introduction to Automobiles courses expose students to the various mechanical systems in automobiles and provide basic experience in maintenance tasks. The course may also cover career opportunities in the automotive and/or transportation fields.

Automotive Mechanics—Comprehensive courses emphasize the diagnosis and repair of automobile engines and support systems such as brakes, cooling, drive trains, electrical/electronics components, emission, fuel, ignition, steering, suspension, and transmissions. Course topics often include the comprehension and use of repair manuals, safety, and employability skills (including shop management and entrepreneurship).

This course introduces students to the basic skills needed to inspect, maintain, and repair automobiles and light trucks that run on gasoline, electricity, or alternative fuels. Instructional units include engine performance, automotive electrical system, integrated computer systems, lubrication, exhaust and emission control, steering and suspension, fuel systems, cooling system, braking, and power train.

This course is a continuation of and builds on the skills and concepts introduced in Automotive Technician I. This course includes instructional units in alternative fuel systems, computerized diagnostics, new vehicle servicing, automotive heating and air conditioning, transmissions, testing and diagnostics, drive train and overall automobile performance.

These courses provide instruction in the mechanics of a particular system or condition, such as transmissions, brakes, fuel, exhaust, or electrical systems, rather than providing a general study of diagnosis and repair of
Automotive Service courses emphasize preventative auto maintenance and automobile troubleshooting. Course content typically includes tune-up, oil change, and lubrication skills; tire replacement, alignment, and balancing; and basic knowledge of brake, cooling, electrical, emission, fuel, ignition, steering, suspension, and transmission systems. These courses may also include public relations, sales techniques, and service station management.

Diesel Mechanics—Comprehensive courses prepare students to maintain and repair diesel engines and related systems. Specific course topics may include principles underlying diesel engines, analyzing electrical circuits and systems, troubleshooting and repairing cooling systems, testing and repairing air conditioning charging systems, reading and interpreting service manuals, and identifying the principles and components of fuel injection systems. Courses may also cover safety, employability skills, and entrepreneurship.
Diesel Mechanics—Comprehensive courses prepare students to maintain and repair diesel engines and related systems. Specific course topics may include principles underlying diesel engines, analyzing electrical circuits and systems, troubleshooting and repairing cooling systems, testing and repairing air conditioning charging systems, reading and interpreting service manuals, and identifying the principles and components of fuel injection systems. Courses may also cover safety, employability skills, and entrepreneurship.

These courses cover specific topics relevant to occupations involving the maintenance and repair of vehicles with diesel engines, such as buses and trucks. One topic (or several closely related topics) concerning diesel mechanics is covered in specific detail in this type of course.

Small Vehicle Mechanics courses equip students with the knowledge and skill to repair and maintain engines in small vehicles (e.g., motorcycles, all-terrain vehicles, snowmobiles, and mopeds). Topics include (but are not limited to) maintaining frames and suspension, wheels and brakes, and drive trains; servicing fuel, exhaust, and electrical systems; performing tune-ups; and maintaining and repairing engines. Students may also learn safety on the job, employability skills, and entrepreneurship.

Small Engine Mechanics courses provide students with the opportunity to learn how to service and recondition small engines, typically emphasizing two- and four-cycle engines. These courses provide students with opportunities to troubleshoot and repair speed controls, lubrication, ignition, fuel, power transfer, cooling, exhaust, and starting systems; use hand, power, and overhaul tools; and read and interpret service manuals and parts' catalogs. Applications may include lawn mowers, tractors, tillers, power tools, and so on.

Small engine repair is an instructional program that prepares individuals to troubleshoot, service, and repair a variety of small internal-combustion engines, involving both two and four cycle engines used on portable power equipment. Planned activities will allow students to become knowledgeable of fundamental principles and technical skills related to troubleshooting, repairing, identifying parts and making precision measurements. Safety will be a key component of this class. Students will also be exposed to career opportunities related to small engines.

This course will be designed to provide the student with the opportunity to complete specialized study in the service and repair of small engines and related systems. Some of these areas may include chain saw repair, snow blower repair, snowmobile repair, generator repair, motorcycle repair, etc. Planned activities will allow students to become knowledgeable of fundamental principles and technical skills related to troubleshooting, repairing, identifying parts and making precision measurements. Other areas that will be covered deal with electrical, systems, ignition systems, drive train and chassis systems. Safety will be a key component of this class. Students will also be exposed to career opportunities related to small engines.

The content of Marine Mechanics courses includes the service and repair of electrical, mechanical, power transfer, hydraulic, fuel, and cooling systems as applied to boat and/or ship engines; boat rigging; trailers; and marine-related merchandise. Courses may also cover communication, human relations, and employability skills, as well as safe, efficient work practices.
Heavy Equipment Mechanics courses include the service and repair of electrical, mechanical, power transfer, hydraulic, fuel, and cooling systems of heavy equipment such as that used in mining, construction, and utility industries.

20112A001 Heavy Equipment Technician I CTE Course
This course introduces students to the basic skills needed to repair and maintain heavy equipment found in the manufacturing industry. Topics covered in this course include safety, blueprint reading basic hand and power tools, introductory hydraulics and pneumatics, orientation to computer diagnostics, basic electricity and electronics, and an introduction to welding technology.

20112A002 Heavy Equipment Technician II CTE Course
This course is a continuation of Heavy Equipment Technician I and builds on the skills and concepts introduced there. New skills introduced in this course include metal separating, drill press, metal lathe, surface grinder, and milling machine operation. Also included are units of instruction on advanced electronics and electricity along with additional skill building activities in welding, braising, hydraulics, pneumatics, computer diagnostics, and precision measurement.

20113A000 Aircraft Power Plant
Aircraft Power Plant courses provide students with the information necessary to troubleshoot, test, repair, and install aircraft engines. Course content usually includes engine ignition, electrical, lubrication, cooling, exhaust, and fuel systems, along with aircraft instrumentation and safety features.
20113A001  Aircraft Technician I  CTE Course
This course provides experiences related to the maintenance, repair, and servicing of a variety of aircraft powerplants. Planned learning activities allow students to become knowledgeable in fundamental principles of aircraft powerplant construction. In addition, students develop technical skills related to avionics, aviation, and airplane power plants. Instruction includes the types, structures, and mechanics of airplanes, electronics, gauge purpose and care, engine mechanics, major component identification, construction techniques, hydraulics, evolution of aerodynamics, and comparison of similar elements in different types of aircraft.

20113A002  Aircraft Technician II  CTE Course
This course provides experiences related to the maintenance, repair, and servicing of a variety of aircraft powerplants and their associated mechanical systems. Planned learning activities emphasize the development of more advanced knowledge and skill than those provided in Aircraft Technician I. Student technical skill experiences include instruction and activities in aviation construction, shop and maintenance related areas of aircraft, safety principles and practices, as well as continued development of skills associated with aircraft powerplants.

20114A000  Aircraft Airframe
Aircraft Airframe courses offer students information and instruction related to the structure and mechanics of aircraft, typically including hydraulic, pneumatic, instrumental, fuel, electrical, cabin atmosphere, and landing gear systems. Aircraft Airframe courses may also cover aircraft metals and coverings and related welding skills.

20115A000  Automotive Detailing and Reconditioning
Automotive Detailing and Reconditioning courses provide students with knowledge and skills related to repairing, refinishing, and detailing automobiles. Course topics typically include painting and refinishing, plastics and adhesives, damage analysis, and repair, in addition to occupational safety, employability, and entrepreneurship skills.

20116A000  Automotive Body Repair and Refinishing—Comprehensive
Automotive Body Repair and Refinishing courses provide students with knowledge and skills regarding the repair and refinishing of damaged or used cars. Course content may include (but is not limited to) stretching and shrinking auto body sheet metal; welding skills; frame and metal straightening; repair of fiberglass and synthetic materials; removing, repairing, and installing auto body parts such as panels, hoods, doors, and windows/glass; preparing vehicles and vehicle surfaces for refinishing; painting; applying body fillers; and estimating material and labor costs.

20116A001  Auto-Body I  CTE Course
This course provides learning experiences designed to allow students to gain knowledge and skills in repairing automotive bodies and fenders. Planned learning activities in this course are balanced to allow students to become knowledgeable in the fundamental aspects of auto body repair methods and techniques, and to develop practical skills in the basic operations required to prepare the automobile for final paint application. Instruction emphasizes safety principles and practices, hazardous materials, auto body nomenclature, function of individual components, the use of parts manuals, the identification of replacement parts, the use of auto body fillers, the use of plastic/glass fillers and special body repair tools, refinishing problems, and paint preparation procedures. Practical activities relate to experiences in writing and calculating damage estimates, removing and installing body panels, trim, and glass; straightening by using hammers, bucks, and jacks; and smoothing by filing, grinding, and using fillers. Students also learn to prime the area to be painted and prepare the surface for final paint application. These experiences and skills are related to metal, fiberglass, or urethane components.

20116A002  Auto-Body II  CTE Course
This course provides learning experiences designed to further enhance the students’ skills in performing more advanced tasks related to automotive body and fender repair. Learning activities in this course emphasize the successful application of the final paint coat and the preparation that precedes it. Emphasis is also placed upon the
identification and correction of imperfections and finish buffing of the final coat. Student learning activities include instruction in safety principles and practices, hazardous materials, types and qualities of paints, colors, and refinishing problems; glass standards and installation, special alignment techniques, customer relations, damage estimating, and insurance adjustments. Student practical activities relate to experiences in estimating collision damage costs, preparing customer bills, removing and replacing glass surfaces, selecting paints, repainting minor and major damages, repainting total car body, drying or baking painted surfaces, post-paint cleanup, and post-paint polishing.

20117A000 Particular Topics in Automotive Body Repair and Refinishing

These courses provide specific instruction in individual topics relevant to the repair and refinishing of automobile bodies and surfaces. One topic or several closely related topics (such as nonstructural part replacement, auto body welding, or plastic repair) receive particular attention in this type of course.
20118A000  Boat Repair/Refinishing
Boat Repair/Refinishing courses convey a broad range of information and skills about how to repair and refinish boat mechanics, structures, and surfaces. In these courses, students become proficient in marine terminology, learn how to describe types of marine manufacturing and occupations, and prepare new and existing wood, fiberglass, and metal surfaces for painting or refinishing. These courses often cover safety, employability skills, and entrepreneurship.

20147A000  Mechanics and Repair—Independent Study
Mechanics and Repair—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to the maintenance of vehicles and engines. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

20148A000  Mechanics and Repair—Workplace Experience
Mechanics and Repair—Workplace Experience courses provide students with work experience in fields related to the maintenance of vehicles and engines. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

20149A000  Mechanics and Repair—Other
Other Mechanics and Repair courses.

20151A000  Distribution—Comprehensive
Distribution—Comprehensive courses provide students with knowledge and skills related to the safe and efficient delivery of commodities to various markets. Course content typically includes the comparative advantages of various forms of transportation, distribution networks, processes for tracking large shipments of material, transportation of goods in a safe and secure manner, and packaging.

20152A000  Warehouse Operations
Warehouse Operations courses convey the principles and processes underlying the receiving, loading and unloading, tracking, and storing of large quantities of materials. Course topics typically include a variety of logistical implications for moving materials by several different modes of transportation, safety and security, and appropriate storage techniques.

20152A001  Warehouse Operations I  CTE Course
This course provides planned learning activities designed to allow students to gain knowledge and skills applicable to the Parts, Warehousing, and Inventory Management Operations occupation. Students are instructed in areas of safety, inventory management, warehouse operations, and inventory control.

20152A002  Warehouse Operations II  CTE Course
This course provides planned learning activities designed to allow students to gain knowledge and skills in PC based inventory control, parts identification, and customer service. Learning activities in this course emphasize the development of more advanced knowledge and skills than those provided in Warehouse Operations I. Skills introduced in this course include data base operations, supply logistics, supplier relations, and shop operations.

20197A000  Distribution and Logistics—Independent Study
Distribution and Logistics—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to distribution and logistics. Independent Study courses may serve as an
opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

**20198A000 Distribution and Logistics—Workplace Experience**

Distribution and Logistics—Workplace Experience courses provide students with work experience in fields related to distribution and logistics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

**20199A000 Distribution and Logistics—Other**

Other Distribution and Logistics courses.
Transportation, Distribution and Logistics—Aide
Transportation, Distribution, and Logistics—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Transportation, Distribution and Logistics—Independent Study
Transportation, Distribution, and Logistics—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to transportation, distribution, and logistics. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Transportation, Distribution and Logistics—Workplace Experience
Transportation, Distribution, and Logistics—Workplace Experience courses provide students with work experience in fields related to transportation, distribution, and logistics. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences encountered in the workplace.

Transportation, Distribution and Logistics—Other
Other Transportation, Distribution and Logistics courses.
21 Engineering and Technology

21001A000 Pre-Engineering Technology
Pre-Engineering Technology courses integrate technology-oriented applications of mathematics and science into pre-engineering activities for students. Course topics may include material sciences, technology processes, enterprises, and career opportunities.

21001A001 Principles of Technology I CTE Course
This course provides learning experiences related to the principles that underlie today’s high technology: force, work, rate, resistance, energy, power, and force transformers. The course deals with these principles as they apply in each of the four systems that make up both the simplest and the most complex technological devices and equipment: mechanical systems, fluid systems, electrical systems, and thermal systems. Learning experiences are designed to allow students to acquire knowledge and skills which are transferable to postsecondary technical programs.

21001A002 Principles of Technology II CTE Course
This course includes learning experiences related to the principles that underlie today’s high technology: momentum, waves and vibrations, energy converters, transducers, radiation, optical systems, and time constraints. The course deals with these principles as they apply in each of the systems that make up both the simplest and the most complex technological devices and equipment: mechanical systems, fluid systems, electrical systems, and thermal systems. Learning experiences are designed to allow students to acquire knowledge and skills which are transferable to postsecondary technical programs.

21002A000 Engineering Applications
Engineering Applications courses provide students with an overview of the practical uses of a variety of engineering applications. Topics covered usually include hydraulics, pneumatics, computer interfacing, robotics, computer-aided design, computer numerical control, and electronics.

21003A000 Engineering Technology
Engineering Technology courses provide students with the opportunity to focus on one or more areas of industrial technology. Students apply technological processes to solve real engineering problems; develop the knowledge and skills to design, modify, use, and apply technology; and may also design and build prototypes and working models. Topics covered in the course include the nature of technology, use of technology, and design processes.

21004A000 Principles of Engineering
Principles of Engineering courses provide students with an understanding of the engineering/technology field. Students typically explore how engineers use various technology systems and manufacturing processes to solve problems; they may also gain an appreciation of the social and political consequences of technological change.

21004A001 Principles of Engineering (PLTW) CTE Course
This course helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes helps students learn how engineers and technicians use math, science, and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

21005A000 Engineering—Comprehensive
Engineering—Comprehensive courses introduce students to and expand their knowledge of major engineering concepts such as modeling, systems, design, optimization, technology-society interaction, and ethics. Particular topics often include applied engineering graphic systems, communicating technical information, engineering design
principles, material science, research and development processes, and manufacturing techniques and systems. The courses may also cover the opportunities and challenges in various branches of engineering.

**21006A000  Engineering Design**

Engineering Design courses offer students experience in solving problems by applying a design development process. Often using solid modeling computer design software, students develop, analyze, and test product solutions models as well as communicate the features of those models.

**21006A001  Introduction to Engineering Design (PLTW)  CTE Course**

This course teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.
21006A002  Engineering Design (EbD)  CTE Course
In this course, engineering scope, content, and professional practice are presented through practical applications. Students in engineering teams apply technology, science, and mathematics concepts and skills to solve engineering design problems and create innovative designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. This course is the capstone experience for students who are interested in Technology, Innovation, Design, and Engineering.

21007A000  Engineering Design and Development
Engineering Design and Development courses provide students with the opportunity to apply engineering research principles as they design and construct a solution to an engineering problem. Students typically develop and test solutions using computer simulations or models but eventually create a working prototype as part of the design solution.

21007A002  Engineering Design & Development (PLTW)  CTE Course
This course is an advanced course in which students demonstrate mastery of knowledge and skills from previous pre-engineering courses to develop an original product or machine design. In groups using project-based learning, students research, design, and construct a solution to an engineering problem. Students apply principles developed in the preceding courses and are guided by an industry mentor. Students must present progress reports, submit a final written report, and defend their solutions to a panel of outside reviewers at the end of the course. Students are placed in management situations in production operations to develop leadership and entrepreneurship skills. Students are responsible for scheduling, pricing, procuring materials and equipment, and the maintaining of equipment.

21008A000  Digital Electronics
Digital Electronics courses teach students how to use applied logic in the development of electronic circuits and devices. Students may use computer simulation software to design and test digital circuitry prior to the actual construction of circuits and devices.

21008A001  Digital Electronics (PLTW)  CTE Course
This is a course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

21009A000  Robotics
Robotics courses develop and expand students’ skills and knowledge so that they can design and develop robotic devices. Topics covered in the course may include mechanics, electrical and motor controls, pneumatics, computer basics, and programmable logic controllers.

21010A000  Computer Integrated Manufacturing
Computer Integrated Manufacturing courses involve the study of robotics and automation. Building on computer solid modeling skills, students may use computer numerical control (CNC) equipment to produce actual models of their three-dimensional designs. Course topics may also include fundamental concepts of robotics, automated manufacturing, and design analysis.

21010A001  Computer Integrated Manufacturing (PLTW)  CTE Course
This course applies principles of robotics and automation in manufacturing through computer control. The course builds on computer solid modeling skills developed in Introduction to Engineering Design. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.
21011A000  Civil Engineering
Civil Engineering courses expose students to the concepts and skills used by urban planners, developers, and builders. Students may be trained in soil sampling and analysis, topography and surveying, and drafting or blueprint-reading. Additional course topics may include traffic analysis, geologic principles, and urban design.

21012A000  Civil Engineering and Architecture
Civil Engineering and Architecture courses provide students with an overview of the fields of Civil Engineering and Architecture while emphasizing the interrelationship of both fields. Students typically use software to address real world problems and to communicate the solutions that they develop. Course topics typically include the roles of civil engineers and architects, project-planning, site-planning, building design, project documentation, and presentation.
21012A001  Civil Engineering & Architecture (PLTW)  CTE Course
This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state-of-the-art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers topics such as the roles of civil engineers and architects, project planning, site planning, building design, project documentation, and presentation.

21013A000  Aerospace Engineering
Aerospace Engineering courses introduce students to the world of aeronautics, flight, and engineering. Topics covered in the course may include the history of flight, aerodynamics and aerodynamics testing, flight systems, astronautics, space life systems, aerospace materials, and systems engineering.

21013A001  Aerospace Engineering (PLTW)  CTE Course
Through hands-on engineering projects developed with NASA, students learn about aerodynamics, astronautics, space-life sciences, and systems engineering (which includes the study of intelligent vehicles like the Mars rovers Spirit and Opportunity).

21014A000  Biotechnical Engineering
Biotechnical Engineering courses enable students to develop and expand their knowledge and skills in biology, physics, technology, and mathematics. Course content may vary widely, drawing upon diverse fields such as biomedical engineering, biomolecular genetics, bioprocess engineering, agricultural biology, or environmental engineering. Students may engage in problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interfaces, bioprocesses, forensics, and bioethics.

21014A001  Biotechnical Engineering (PLTW)  CTE Course
This course includes relevant projects from the diverse fields of bio-technology, bio-engineering, bio-medical engineering, and bio-molecular engineering which enable students to apply and concurrently develop secondary-level knowledge and skills in biology, physics, technology, and mathematics.

21015A000  Particular Topics in Engineering
These courses examine specific topics in engineering other than those already described.

21047A000  Engineering—Independent Study
Engineering—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to engineering. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

21048A000  Engineering—Workplace Experience
Engineering—Workplace Experience courses provide students with work experience in an engineering-related field. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

21049A000  Engineering—Other
Other Engineering courses.
21051A000  Technological Literacy
Technological Literacy courses expose students to the communication, transportation, energy, production, biotechnology, and integrated technology systems and processes that affect their lives. The study of these processes enables students to better understand technological systems and their applications and uses.

21052A000  Technological Processes
Technological Processes courses provide students with the opportunity to focus on one or more areas of industrial technology, applying technological processes to solve real problems and developing the knowledge and skills to design, modify, use, and apply technology appropriately. Students may examine case studies, explore simulations, or design and build prototypes and working models.
21052A001  Foundations of Technology (EbD)  CTE Course
This course focuses on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities, with the goal of students developing the characteristics of technology literate citizens. The course employs teaching/learning strategies that enable students to build their own understanding of new ideas. It is designed to engage students in exploring and deepening their understanding of “big ideas” regarding technology and makes use of a variety of assessment instruments to reveal the extent of understanding in the following areas: engineering design, manufacturing technologies, construction technologies, energy & power, information & communication technologies.

21052A002  Introduction to Technology and Engineering (Industrial)  CTE Course
Introduction to Technology & Engineering is comprised of the following areas: Production, Transportation, Communication, Energy Utilization and Engineering Design but is not limited to these areas only. This course will cover the resources, technical processes, industrial applications, technological impact and occupations encompassed by that system.

21053A000  Emerging Technologies
Emerging Technologies courses emphasize students’ exposure to and understanding of new and emerging technologies. The range of technological issues varies widely but typically include lasers, fiber options, electronics, robotics, computer technologies, CAD/CAM, communication modalities, and transportation technologies.

21054A000  Technology Innovation and Assessment  CTE Course
Technology Innovation and Assessment courses use engineering design activities to help students understand how criteria, constraints, and processes affect design solutions and provide students with the skills to systematically assess technological developments or solutions. Course topics may include brainstorming, visualizing, modeling, simulating, constructing, testing, and refining designs.

21054A001  Technological Design (EbD)  CTE Course
In this course, engineering scope, content, and professional practices are presented through practical applications. Students in engineering teams apply technology, science, and mathematics concepts and skills to solve engineering design problems and innovative designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics.

21054A004  Technology, Society & Sustainability  CTE Course
Technology, Society and Sustainability course will provide an overview of the importance of, impact on, and relationships between technological endeavors and society at large. This courses typically emphasize environmental factors, economics impacts and the influences of society on technological/environmental endeavors.

21055A000  Aerospace Technology
Aerospace Technology courses introduce students to the technology systems used in the aerospace industry and their interrelationships. Examples of such systems include satellite communications systems, composite materials in airframe manufacturing, space station constructions techniques, space shuttle propulsion systems, aerostatics, and aerodynamics.
Particular Topics in Technology Applications
These courses examine specific topics in technology applications other than those already described.

Technology—Independent Study
Technology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to technology systems and processes. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Technology—Workplace Experience
Technology—Workplace Experience courses provide students with work experience in a field related to technological systems and structures. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Technology—Other
Other Technology courses.

Drafting Careers Exploration
Geared for students with an interest in careers that use drafting skills and applications, Drafting Careers Exploration courses expose students to the opportunities available for draftspersons (engineering, architectural, industrial, and so on). These courses serve to introduce basic skills and the field in general, providing students with the opportunity to identify a focus for continued study or to determine that their interests lie elsewhere.

Drafting—General
Drafting—General courses, usually offered as a sequence of courses, introduce students to the technical craft of drawing illustrations to represent and/or analyze design specifications and then refine the skills necessary for this craft. Drafting—General courses use exercises from a variety of applications to provide students with the knowledge and experience to develop the ability to perform freehand sketching, lettering, geometric construction, and multiview projections and to produce various types of drawings (working, detail, assembly, schematic, perspective, and so on). Computer-aided drafting (CAD) systems (if available) are typically introduced and used to fulfill course objectives.

Drafting CTE Course
Drafting—General courses, usually offered as a sequence of courses, introduce students to the technical craft of drawing illustrations to represent and/or analyze design specifications and then refine the skills necessary for this craft. Drafting—General courses use exercises from a variety of applications to provide students with the knowledge and experience to develop the ability to perform freehand sketching, lettering, geometric construction, and multiview projections and to produce various types of drawings (working, detail, assembly, schematic, perspective, and so on). Computer-aided drafting (CAD) systems (if available) are typically introduced and used to fulfill course objectives.

Drafting—Architectural
Drafting—Architectural courses introduce students to and help them refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from architectural applications. These courses are intended to help students develop general drafting skills, but place a particular emphasis on interior and exterior residential (and light commercial) design, site orientation, floor plans, electrical plans, design sketches, and presentation drawings. In addition, students may prepare scale models.

Architectural Drafting I CTE Course
This course is designed to provide students interested in a career in Architecture with information and practical experience needed for the development of job-related competencies. Students are made aware of the career opportunities available in the Architectural Drafting and Architectural Drafting CAD - CADD field. Instruction is provided in the areas of planning and organizing activities, researching information, performing general office procedures, preparing of preliminary drawings, basic layout, detail drawings, reproduction techniques, producing working drawings, and computer aided drafting. Students are also provided with instruction in producing architectural drawings in the areas of presentation, floor plans, illustration of landscape features, sketching preliminary floor plans, drawing foundation plans and sections, exterior elevations, stair sections, chimney sections, roof sections, finish schedules, preparing plumbing, HVAC and electrical plans, and structural drawings.
Architectural Drafting II CTE Course

Instruction is provided in the areas of locating information using computer data files, determination of materials and availability, project conferences, checking plan dimensions, drawing schematic sketches, preparing scale sketches, producing drawings from written/verbal instructions, application of coordinate dimensioning standards, creating drawings using a plotter/printer, producing renderings and/or charts and graphs, and common plan features. Instruction is also provided in the areas of drawing framing plans, wall sections, fireplace sections, door sections, door and window schedules, dimensioning structural steel drawings, constructing column detail drawings, preparation of structural foundation, slab and floor plans, drawing electrical, block, schematic, and electrical connection drawings. Skills relating to CAD include preparation of a basic CAD drawing, building and editing a data base, developing a 3-dimensional drawing and selecting appropriate line work, line weight, and color.

Drafting—Civil/Structural

Drafting—Civil/Structural courses introduce students to and help them refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from civil engineering and/or structural applications. These courses are intended to help students develop general drafting skills, but place a particular emphasis on skills needed for typography and survey work.

Drafting—Electrical/Electronic

Drafting—Electrical/Electronic courses introduce students to and help them refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from electric and/or electronic fields. These courses are intended to help students develop general drafting skills, but place a particular emphasis on those skills needed for electrical and electronic schematics.

Drafting—Technical/Mechanical

Drafting—Technical/Mechanical courses introduce students to and help them refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from industrial applications. These courses are intended to help students develop general drafting skills, but place a particular emphasis on sectioning, auxiliary views, revolutions, and surface development. In these courses, students typically learn basic machining and fabrication processes as they draw schematic diagrams featuring cams, gears, linkages, levers, pulleys, and so on.

Mechanical Drafting I CTE Course

This course introduces students to layout to scale using specified tolerances, preparing detail drawing for individual parts from drawings, layout and creating assembly drawings, and preparing mechanical orthographic subassembly drawings. This course also includes a sequence of CAD experiences in 2-dimensional and 3-dimensional drawing generation to include vocabulary development, system operation, entity creation, dimensioning and text insertion, plotting, three dimensional coordinate system, 3-D parts detailing and assembly drawings, wire frame models, and system management relative to hard disk and tape storage systems.

Mechanical Drafting II CTE Course

Instruction is provided in the areas of identifying appropriate interfacing personnel (internal/external), producing renderings and project time schedules, producing structural working drawings as structural steel plans, dimension structural steel drawings, and draw beam connections, and producing electrical and electronic working drawings as electrical and electronic schematic diagrams. Additional skills introduced in this program include determining the requirements of a specific drafting job, preparing preliminary drawings such as freehand, isometric, orthographic, and oblique sketches; preparing detail drawings such as creating assembly drawings, orthographic projections, sectional views, auxiliary views, isometric views and letter drawings; producing mechanical working drawings such as detailing components of mechanical orthographic assembly and subassembly drawings; using CAD command processes as preparing a basic CAD drawing, start up, log on, retrieve, save, log off and shut down CAD system; creating disk files, copying disk files, and generating a grid on drawing.
21107A000  CAD Design and Software
Frequently offered as an intermediary step to more advanced drafting courses (or as a concurrent course), CAD Design and Software courses introduce students to the computer-aided drafting systems available in the industry.

21108A000  Blueprint Reading
Blueprint Reading courses provide students with the knowledge and ability to interpret the lines, symbols, and conventions of drafted blueprints. They generally emphasize interpreting, not producing, blueprints, although the courses may provide both types of experiences. Blueprint Reading courses typically use examples from a wide variety of industrial and technological applications.

21147A000  Drafting—Independent Study
Drafting—Independent Study courses, often conducted with instructors as mentors, enable students to explore drafting-related topics of interest. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.
Drafting—Workplace Experience
Drafting—Workplace Experience courses provide work experience in a field related to drafting. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Drafting—Other
Other Drafting courses.

Engineering and Technology—Aide
Engineering and Technology—Aide courses offer students the opportunity to assist instructors in preparing, organizing or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

Engineering and Technology—Independent Study
Engineering and Technology—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to engineering and/or technology. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

Engineering and Technology—Workplace Experience
Engineering and Technology—Workplace Experience courses provide students with work experience in a field related to engineering or technology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

Engineering and Technology—Other
Other Engineering and Technology courses.
22 Miscellaneous

22001A000 Standardized Test Preparation

Standardized Test Preparation courses help prepare students for national standardized tests such as the PSAT, SAT, and ACT. In particular, these courses assist students in developing and/or expanding their vocabulary, test-taking, and reasoning skills through study, lecture, and practice drills. Course topics may include vocabulary review; root words, prefixes, and suffixes; mathematical concepts, logic, and rules; and general problem-solving and test-taking strategies.

22002A000 State Test Preparation

State Test Preparation courses prepare students for particular state tests required for graduation. These courses may cover specific content areas (such as citizenship, mathematics, language arts, and so on) according to individual student needs, or they may provide a more general course of study, similar to the Standardized Test Preparation course described above.

22003A000 Study Skills

Study Skills courses prepare students for success in high school and/or for postsecondary education. Course topics may vary according to the students involved, but typically include reading improvement skills, such as scanning, note-taking, and outlining; library and research skills; listening and note-taking; vocabulary skills; and test-taking skills. The courses may also include exercises designed to generate organized, logical thinking and writing.

22004A000 Dropout Prevention Program

Dropout Prevention Program courses vary widely, but typically are targeted at students who have been identified as being at risk of dropping out of or failing in school. Course content may include study skills and individual tutorials; job preparation, readiness, application, or interview skills; communication skills; personal assessment and awareness activities; speaker presentations; and small group seminars.

22004A001 Work Experience and Career Exploration Program CTE Course

Dropout Prevention Program courses vary widely, but typically are targeted at students who have been identified as being at risk of dropping out of or failing in school. Course content may include study skills and individual tutorials; job preparation, readiness, application, or interview skills; communication skills; personal assessment and awareness activities; speaker presentations; and small group seminars.

22005A000 Tutorial

Tutorial courses provide students with the assistance they need to successfully complete their coursework. Students may receive help in one or several subjects.

22006A000 Study Hall

Study Hall courses provide students with the opportunity and time to complete classroom assignments or school projects. Students typically work on their own, without the help of a tutor; however, they are supervised and usually remain in the classroom.

22051A000 Office Aide

Office Aide courses provide students with the opportunity to work in campus offices, developing skills related to clerical office work. Duties may include typing, filing, record-keeping, receiving visitors, answering the telephone, and duplicating, among others. These courses emphasize appropriate work attitudes, human relations, and proper office procedures.
22052A000  Guidance Aide
Guidance Aide courses provide students with the opportunity to work in the campus guidance office. Duties may include typing, filing, record-keeping, assisting students, answering the telephone, and duplicating, among others. Students may also act as guides to new students. These courses emphasize appropriate work attitudes, human relations, and proper office procedures.

22053A000  Library/AVC Aide
Library/AVC Aide courses provide students with the opportunity to work in the library or in media and audiovisual centers. Duties may include collecting, distributing, and categorizing materials; operating audiovisual equipment; assisting students and teachers; and performing clerical duties. Students typically gain experience in library science and/or media and audiovisual technology.
22054A000  Tutoring Practicum
Tutoring Practicum courses provide students with the opportunity to offer tutorial assistance to their peers or to younger students. After an initial training period during which students learn how to work with other students and how to make use of the available resources (e.g., staff, written material, audiovisual aids, and so on), students engage in tutoring and assisting others who need or request help.

22101A000  Leadership
Leadership courses are designed to strengthen students' personal and group leadership skills. Typically intended for students involved in extracurricular activities (especially as officers of organizations or student governing bodies), these courses may cover such topics as public speaking, effective communication, human relations, parliamentary law and procedures, organization and management, and group dynamics.

22102A000  School Orientation
School Orientation courses provide students with an introduction to the culture of their school so that they understand staff expectations and the school's structure and conventions. These courses may vary widely according to the philosophy, aims, and methods of each school.

22103A000  School Governance
School Governance courses convene students as an entire student body to discuss common concerns, organize groups for action, make decisions, and solve school-related problems. Because of the nature of these courses, they are typically offered at private, alternative, or experimental schools.

22104A000  Community Service
Community Service courses provide students with the opportunity to volunteer their time, energy, and talents to serve a community project or organization. These courses are usually (but not always) conducted with a seminar component, so that students can use their volunteer experiences to learn how to solve problems, make decisions, and communicate effectively.

22105A000  Values Clarification
Values Clarification courses enable students to explore individual and societal actions and implications in order to help them develop personal values and make decisions about their lives. Examples of discussion topics include philosophy and religion, world resource allocation, genetic engineering, environmental issues, and death-related issues (euthanasia, suicide, and abortion).

22106A000  Seminar
Seminar courses vary widely, but typically offer a small peer group the opportunity to investigate areas of interest. Course objectives may include improvement of research and investigatory skills, presentation skills, interpersonal skills, group process skills, and problem-solving and critical-thinking skills. Seminars aimed at juniors and seniors often include a college and career exploration and planning component.

22107A000  AP Seminar
Designed by the College Board, AP seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary and philosophical texts; listening to and viewing speeches, broadcasts and personal accounts; and experiencing artistic works and performances. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.
22151A000 Career Exploration
Career Exploration courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. These courses expose students to various sources of information on career and training options and may also assist them in developing job search and employability skills.

22152A000 Employability Skills
Employability Skills courses help students match their interests and aptitudes to career options with a focus on using employment information effectively, acquiring and improving job-seeking and interview skills, composing job applications and resumes, and learning the skills needed to remain in and advance within the workplace. Course content may also include consumer education and personal money management topics.

22153A000 Diversified Occupations
Diversified Occupations courses help students enter the workforce through career exploration, job search and application, and the development of positive work attitudes and work-related skills. These courses typically cover such topics as career planning and selection, money management, communication skills, interpersonal business relationships and behaviors, and personal responsibility. Employment may be a required component of these courses, or students may be required to enroll concurrently in a work experience course.
Cooperative Education is a capstone course designed to assist students in the development of effective skills and attitudes through practical, advanced instruction in school and on the job through cooperative education. Students are released from school for their paid cooperative education work experience and participate in 200 minutes per week of related classroom instruction. Classroom instruction focuses on providing students with job survival skills and career exploration skills related to the job and improving students' abilities to interact positively with others. For skills related to the job, refer to the skill development course sequences, the task list or related occupational skill standards of the desired occupational program. The course content includes the following broad areas of emphasis: further career education opportunities, planning for the future, job-seeking skills, personal development, human relationships, legal protection and responsibilities, economics and the job, organizations, and job termination. A qualified career and technical education coordinator is responsible for supervision. Written training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator. The coordinator, student, and employer assume compliance with federal, state, and local laws and regulations.

Family and Consumer Sciences Cooperative Education is designed for students interested in pursuing careers in occupations in the field family and consumer sciences. Classroom instruction focuses on providing students with workplace skills, post-secondary education opportunities related to the job/career pathway, developing and maintaining positive workplace relationships, planning for the future, legal protection and responsibility, professional organizations, and advancing skills related to the job. Classroom and worksite instruction is based on the duties of the FCS occupation. Students are released from school for their paid cooperative education work experience, participate in 200 minutes per week of related classroom instruction, and supervised on-the-by a qualified instructor ½ hour or more per week per student. A qualified, certified FCS instructor is responsible for supervision. Written training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator. The coordinator, student and employer assume compliance with federal, state, and local laws and regulations.

Family and Consumer Science—Comprehensive courses are inclusive studies of the knowledge and skills that are useful for the efficient and productive management of the home. Course topics typically include foods and nutrition; clothing; child development and care; housing design, decoration, and maintenance; consumer decisions and personal financial management; and interpersonal relationships.

This course introduces students to the field of family and consumer sciences and the many career opportunities available in this broad field. The course includes theory and laboratory experiences in the following content areas: Nutrition and culinary arts; textiles and design; family, career, and community leadership development; resource management; human development and life-long learning; facility design, care, and management; and interpersonal relationships and life management skills.

Food and Nutrition courses provide students with an understanding of food's role in society, instruction in how to plan and prepare meals, experience in the proper use of equipment and utensils, and background on the nutritional needs and requirements for healthy living. Some classes place a heavier emphasis on the nutritional components of a balanced diet, while others concentrate on specific types of food preparation. Although these courses may present career opportunities in the food service industry, their emphasis is not career-related.

Food Science courses offer opportunities to study the composition, structure, and properties of foods and the chemical changes that occur during the processing, storage, preparation, and consumption of food. These courses
often explore the effects of various materials, microorganisms, and processes on food products through laboratory experiments.

**22203A001 Food Science**  
CTE Course
The scientific method is used to study foods as a combination of chemical, physical and biological sciences. Laboratory skills in measuring, recording, and analyzing data are used to explore the interrelationship of food science to the other sciences; the scientific evaluation of food, matter, electrolyte solutions, energy, nutrition; food safety; and food chemistry. Experimental methods are used to analyze food mixtures, food microbiology, fermentation, sensory processes, the preservation of foods and complex food systems. Technology is studied as it relates to product development, consumer needs and experimental designs. Emphasis is placed on emerging careers in food science and biotechnology and the application of food science in food service, nutrition, dietetics, and product development.

**22204A000 Child Development/Parenting**
Child Development/Parenting courses provide students with knowledge about the physical, mental, emotional, and social growth and development of children from conception to pre-school age. In addition, these courses help students discover how parents should respond to the various stages of childhood. Course content typically includes topics such as prenatal and birth processes; responsibilities and difficulties of parenthood; fundamentals of children's emotional and physical development; and the appropriate care of infants, toddlers, and young children.
22204A001 Parenting CTE Course

This course helps students understand the responsibilities, satisfactions and stresses of parenthood. Course content includes the following: managing and organizing parenting by applying decision-making and goal-setting skills; applying the basic principles of the parenting process; practicing health and safety standards as related to parenting; providing experiences which encourage parents and children to maximize resources; encouraging human relations skills in children/adolescents; community resource agencies and services; and evaluating impact on parenting of family and career changes.

22205A000 Clothing/Sewing

Clothing/Sewing courses introduce students to and expand their knowledge of various aspects of wearing apparel, sewing, and fashion. These courses typically include wardrobe planning; selection, care, and repair of various materials; and construction of one or more garments. They may also include related topics, such as fashion design, fashion history, the social and psychological aspects of clothing, careers in the clothing industry, and craft sewing.

22206A000 Life Skills

Life Skills courses provide students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize such topics as goal-setting, decision-making, and setting priorities; money and time management; relationships; and the development of the self. Practical exercises regarding selecting and furnishing houses, meeting transportation needs, preparing food, selecting clothing, and building a wardrobe are often integral to these classes. In addition, specific topics such as insurance, taxation, and consumer protection may also be covered.

22207A000 Self Management

Self-Management courses introduce students to the skills and strategies helpful in becoming more focused, productive individuals. These courses typically emphasize goal-setting; decision-making; managing time, energy, and stress; and identifying alternatives and coping strategies. They may also allow students to explore various career and lifestyle choices.

22207A001 Family and Career Relationships CTE Course

This course is designed to focus on the knowledge, attitudes, and behaviors needed to participate in positive, caring, and respectful relationships in the family, community, and workplace. This project-based course uses communication, leadership and management methods to develop knowledge and behaviors necessary for individuals to become independent, contributing, and responsible participants in family, community, and career settings. Emphasis is placed on the development of techniques and strategies to assist individuals in responding to situations presented in family relationships and the workplace. The course content includes: managing responsibilities, satisfactions and stresses of work and family life; analyzing personal standards, needs, aptitudes and goals; roles and responsibilities of living independently and as a family member; demonstrating goal-setting and decision-making skills; identifying and utilizing community resources; and developing effective relationships to promote communication with others. The course provides students content to identify resources that will assist them in managing life situations.

22208A000 Family Living

Family Living courses emphasize building and maintaining healthy interpersonal relationships among family members and other members of society. These courses often emphasize (but are not limited to) topics such as social/dating practices, human sexuality and reproduction, marriage preparation, parenthood and the function of the family unit, and the various stages of life. They may also cover topics related to individual self-development, career development, personal awareness, and preparation for the responsibilities of a family member and wage earner.

22209A000 Personal Development
Similar to Family Living courses, but more focused on the individual, Personal Development courses emphasize strengthening self-esteem, recognizing and resisting negative peer pressure, and developing coping skills for dealing with changes within one’s self and within others. These courses may also have a substance-abuse prevention component.

**22210A000 Consumer Economics/Personal Finance**

Consumer Economics/Personal Finance courses provide students with an understanding of the concepts and principles involved in managing one’s personal finances. Topics may include savings and investing, credit, insurance, taxes and social security, spending patterns and budget planning, contracts, and consumer protection. These courses may also provide an overview of the American economy.
22210A001  Family Resource Management and Planning  CTE Course
This course focuses on the identification and management of personal and family resources to meet the needs, values, and wants of individuals and families throughout the life cycle. The course utilizes a variety of project-based experiences and service learning opportunities to gain knowledge and expertise in understanding and applying management skills, with consideration to diverse social, economic, technological, environmental, and cultural characteristics of individuals and families. Topics include: consumer rights and responsibilities in the marketplace; financial responsibility and decision making; planning and money management; credit and debt; risk management and insurance; saving and investment; homeownership; state and federal taxes; electronic banking; and current issues in the economy.

22211A000  Home Décor
Home Décor courses provide students with knowledge and skills regarding interior design and decoration of the home for the individual or family. While exploring design principles, personal needs and style, and decision-making, students may have an opportunity to explore such topics as color, texture, furniture styles and arrangement, lighting, window treatments, floor and wall coverings, and home improvement/modification. These courses emphasize personal (rather than commercial) use and application of home décor principles.

22211A001  Interior Design: Residential, Commercial, and Public Space  CTE Course
This course provides basic knowledge and skills needed to select, acquire, furnish, maintain, and manage residential and commercial environments to meet the needs of the users/occupants. The course includes the application of the interior design elements and principles; selection and care of furnishings, equipment and accessories in relation to socio-economic factors, trends, personal tastes and characteristics, as well as physical and psychological needs; safety, sanitation, and efficiency factors in interior design; and evaluating use and care of textiles. This project based course investigates a variety of related career opportunities, including entrepreneurship. Emphasis is placed on the application of project management skills.

22245A000  Family and Consumer Science—Aide
Family and Consumer Science—Aide courses offer students the opportunity to assist instructors in preparing, organizing or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

22247A000  Family and Consumer Science—Independent Study
Family and Consumer Science—Independent Study courses, often conducted with instructors as mentors, enable students to explore topics of interest related to home- and self-management. Independent Study courses may provide students with an opportunity to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills.

22249A000  Family and Consumer Science—Other
Other Family and Consumer Science courses.

22249A001  Family and Consumer Science—Other  CTE Course
This course provides the opportunity for students to investigate and analyze current family and consumer sciences issues and determine how they affect people on all sides of the issue. Students will participate in projects and activities that will reinforce goal-setting, character development, parliamentary procedure, and other leadership traits to become successful in life and the workplace. The students will develop and enhance their written and verbal communication skills through presentations of their views and opinions. Students will demonstrate their ability to arrange and present information through a variety of experiences, including but not limited to written, debate, testimonial, and interviews. Participation in Family, Career, and Community Leaders of America (FCCLA) student organization programs and activities are an integral course component for leadership development, career exploration, and reinforcement of academic concepts. Community service projects and opportunities to practice
communication and leadership skills will be an integral part of this course.

**22251A000 Community Living**

Community Living courses place a special emphasis on the student’s relationship to the surrounding community. Instruction varies with the students and their needs; however, these courses provide the skills necessary for independent functioning within the surrounding environment. Course topics may also include available community resources and how to access them, emergency skills, and independent living strategies.

**22252A000 Communication Instruction**

Communication Instruction courses are typically individualized according to each student’s condition and needs. Increasing the student’s communication skills—oral expression, listening comprehension, reading, and writing—is emphasized; communication techniques in several areas (educational, social, and vocational) are often explored.

**22253A000 Social Development Instruction**

Social Development Instruction courses teach students the social skills needed for independent functioning within the community. Topics may include self-control, self-expression, obeying rules, decision-making, appropriate situational behavior, interacting with others, and maintaining relationships. Students may develop independence, self-confidence, and self-reliance.

**22254A000 Developmental Support**

Developmental Support courses are customized according to each student’s condition and needs, emphasizing an increase in skill or control of body and mind function. Examples of support may include refinement of gross and fine motor skills, development of visual perception, and improvement in eye-hand coordination.

**22995A000 Miscellaneous—Aide**

Miscellaneous—Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula or to assist other staff members in fulfilling their duties. Students may provide tutorial or instructional assistance to other students. Note: if the particular subject area is known, use the code associated with the Aide course within that subject area.

**22997A000 Miscellaneous—Independent Study**

Miscellaneous—Independent Study courses, typically organized as a mentorship with a teacher or outside professional, enable students to conduct investigations related to their field(s) of interest. Note: if the particular subject area is known, use the code associated with the Independent Study course within that subject area.

**22998A000 Miscellaneous—Workplace Experience**

Miscellaneous—Workplace Experience courses provide students with work experience in a field related to their interests. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace. Note: if the particular subject area is known, use the code associated with the Workplace Experience course within that subject area.

**22999A000 Miscellaneous—Other**

Other Miscellaneous courses.