

# **ODE EMIS MANUAL**

## **Section 4.7: Subject Codes**



**Version 2.0**  
November 28, 2012

## REVISION HISTORY

The revision history provides a means for the readers to easily navigate to the places in the manual where updates have occurred. Where there has been a significant change or update it will be highlighted. Minor changes, such as typos, formatting, and grammar are not highlighted.

Version	Date	Effective Date (FY & Reporting Period)	Change #	Description
<a href="#">2.0</a>	<a href="#">9-20-12</a>	<a href="#">FY13 October (K)</a>	<a href="#">907</a>	<a href="#">Deleted the following subject codes: 010301, 010201, 010901, 012000, 011001, 010601, 010701, 010001, 010150.</a>
<a href="#">2.0</a>	<a href="#">9-20-12</a>	<a href="#">FY13 October (K)</a>	<a href="#">907</a>	<a href="#">Added the following subject codes: 012015, 012020, 012025, 010718, 010716, 010717.</a>
<a href="#">2.0</a>	<a href="#">9-20-12</a>	<a href="#">FY13 October (K)</a>	<a href="#">907</a>	<a href="#">Changed the name of course code 990361.</a>
<a href="#">2.0</a>	<a href="#">11-27-12</a>	<a href="#">FY13 October (K)</a>	<a href="#">FY12 875</a>	<a href="#">Deleted the following subject codes: 151207, 150210, 151131, 152410, 150110.</a>

## 4.7 SUBJECT CODES

### ACADEMIC CONTENT AREAS SECTION

#### *Fine Arts Section*

**Table 1. Dance Codes (0803xx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
080312	<b>Introduction to Dance</b> A study of the skills and processes necessary to understand and experience dance as an art form and as a means of meaningful communication. Emphasis is placed on kinesthetic intelligence and the fundamentals of dance and choreography. Study also emphasizes the role of dance throughout history and in different cultures.	FAR	Arts
080315	<b>Comprehensive Dance</b> A comprehensive study of the knowledge and processes of creating, performing, responding to, and representing ideas through the art form of dance. Multiculturalism, art history, art criticism and aesthetics are incorporated into course content and dance experiences for individual and group learning.	FAR	Arts

**Table 2. Drama/Theatre Arts Codes (050xxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
050337	<b>Drama/Theatre in grades K-8</b> The study of dramatic elements and theatrical techniques, particularly in an improvisational, non-exhibitional, process-centered manner, designed to develop imagination, communication, and expressive skills.	N/A	Arts
050600	<b>Theatre Arts</b> Subject matter and experiences are concerned with a wide range of studies and activities including playwriting, dramatic literature, scene design, technical theatre, acting, directing, and the supporting of arts and crafts of the theatre and of selected aspects of video, radio, television and film.	FAR	Arts

**Table 3. Music Codes (12xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
122000	<b>Music (K-8)</b> Organized study of the elements and styles of music and the historical, cultural and societal context of music designed for all pupils in grades K-8.	N/A	Arts
120000	<b>General Music</b> Organized subject matter and musical experiences consisting of an extensive and varied study of music designed for all pupils in grades K-12.  (This subject code will be deleted in FY13; subject code 120001 is the replacement.)	FAR	Arts
120001	<b>General Music</b> Organized subject matter and musical experiences consisting of an extensive and varied study of music designed for all pupils in grades K-12.	FAR	Arts
120300	<b>Music Theory</b> The study of the principles of music, including rudiments, harmony, counterpoint, form and analysis, orchestration and skills such as sight singing, ear training, conducting and composing.	FAR	Arts
120400	<b>Vocal/Choral Music</b> Learning experiences designed for the study of vocal / choral repertoire and the development of vocal / choral skills through solo and ensemble performance.	FAR	Arts
120500	<b>Instrumental Music</b> Learning experiences designed for the study of instrumental repertoire and the development of instrumental skills through solo and ensemble performance.	FAR	Arts
120800	<b>Music Appreciation</b> Organized subject matter and learning experiences designed to further pupils' knowledge, comprehension, and appreciation of various types and styles of music.	FAR	Arts
129999	<b>Other Music Course</b> A music course that is given for high school credit toward graduation that is different in scope from any of the other SUBJECT CODES described above and which addresses important content (knowledge and skills) in the study of music.	FAR	Arts

**Table 4. Visual Art Codes (02xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
020012	<p><b>Visual Art (K-12)</b> A study of the knowledge, skills and processes for observing, creating, responding and communicating in ways that are unique to visual art. Art production and the construction of meaning in visual artworks are complimentary learning activities. Course content may include meaningful connections between visual art and other disciplines to enable students to understand art in a broader context.</p>	FAR	Arts
020100	<p><b>Art Appreciation</b> The study of works of visual art from various historical, cultural and social contexts. Instruction addresses multiple strategies for inquiry to enable students to develop and present their own views and responses to specific artworks and to discuss the viewpoints of others.</p>	FAR	Arts
020101	<p><b>Art History</b> This course examines the reciprocal impact between visual art and historical, cultural, social and political contexts. Key artworks are studied chronologically and thematically with emphasis on subject matter, ideas, and the formal, technical and expressive aspects of the works.</p>	FAR	Arts
020210	<p><b>Design</b> This course emphasizes study of the elements and principles of art and design. Students explore, organize, and use the elements and principles to create two- and three-dimensional original work in various forms and media.</p>	FAR	Arts
020240	<p><b>Crafts</b> Students acquire utilitarian skills including weaving, jewelry-making, fabric crafting, basketry, metalsmithing, leather-shaping, and wood-forming. Objects by professional craftspersons are studied for their formal, expressive, and technical qualities.</p>	FAR	Arts
020242	<p><b>Ceramics</b> Original objects (primary pottery and sculpture) are created with clay using hand building, casting, wheel forming, and glazing techniques. Objects created by professional ceramists are examined for their expressive, formal, and technical qualities.</p>	FAR	Arts
020250	<p><b>Drawing and Painting</b> Pencil, pen and ink, chalk, charcoal, acrylics, oils, and watercolors are explored to create original personal images. Drawings and paintings by culturally and historically representative artists are examined for their formal, expressive, and technical qualities.</p>	FAR	Arts
020270	<p><b>Photography and Film Making</b> Still and motion picture camera procedures are investigated along with darkroom developing and printing techniques. The expressive, formal, and technical qualities of professional work are studied.</p>	FAR	Arts

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
020280	<p><b>Printmaking</b> Linoleum block printing, woodblock printing, silk-screen printing, and etching are studied as processes for expressing ideas. Professional printmakers' products are also examined.</p>	FAR	Arts
020290	<p><b>Sculpture</b> Various media such as clay, metal, wood, stone, and wire and various processes such as carving, casting, soldering, and modeling are investigated as means for creating three-dimensional artistic forms. Professional sculptors' works are studied.</p>	FAR	Arts
029902	<p><b>Advanced Visual Art</b> An advanced course of organized subject matter and experiences in art. Works from different cultures and time periods as well as those created by the students are studied.</p>	FAR	Arts
020320	<p><b>Graphic Arts/Unified Arts</b> Computer design is explored to develop understanding of techniques, processes and possibilities of electronic media to understand, create and appreciate visual art.</p>	FAR	Arts
029100	<p><b>Studio Art – Drawing</b> A course in drawing for students who are highly motivated and have previous training in art.</p>	FAR	Arts
029110	<p><b>Studio Art – 2D Design</b> A course in two-dimensional art design for students who are highly motivated and have previous training in art.</p>	FAR	Arts
029120	<p><b>Studio Art – 3D Design</b> A course in three-dimensional art design for students who are highly motivated and have previous training in art.</p>	FAR	Arts
029999	<p><b>Other Visual Art Course</b> A course that is given for high school credit toward graduation, but that is different in scope from any of the other SUBJECT CODES described above and which addresses important content (knowledge and skills) in the study of visual art.</p>	FAR	Arts

**Business Education Section****Table 5. Business Education (Non-Career Technical) Codes (03xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
030100	<p><b>Accounting</b> Instruction focuses on the management of a company's financial resources including the accounting cycle, financial statements, and interpretation and use of financial data. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS	—
030500	<p><b>Business Mathematics</b> Students develop the skills necessary to solve mathematical problems, analyze and interpret data, and apply sound decision-making skills in business. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS, MTH	Mathematics
030600	<p><b>Business Communications</b> Students master the oral and written communication skills essential to interacting effectively with people in the workplace and society. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS, ENG	English
030900	<p><b>Business Law</b> Addresses statutes and regulations affecting businesses, families and individuals in their related roles. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS	—
031500	<p><b>Personal Finance</b> Students develop and utilize rational decision-making processes to form personal financial decisions in their roles as citizens, workers, and consumers. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS	—
031700	<p><b>Computer Programming and Software Development</b> Students design, develop, test and implement computer programs using structural/procedural, objective oriented, data description, scripting/control, and/or mark-up languages. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
031800	<p><b>Business Economics</b> Develops student's abilities to make wise economic decisions related to their personal financial affairs, the successful operation of organizations, and the economic activities of the country. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS, SOC	Economics
032300	<p><b>Introduction to Business/General Business</b> The study of domestic and international business operations including start-up, financing, management, and standard practices. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS	—
032800	<p><b>Office Procedures</b> Instruction in office practices and procedures, office technology, office environment, records management, human relations, and telephone techniques. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS	—
033450	<p><b>Business (Other)</b> Abbreviated written and/or electronic communications.</p>	BUS	—
036000	<p><b>Computer Application</b> Students identify, evaluate, select, install, use, upgrade, and customize application software. Computer applications include word processing, database, spreadsheet, presentation, and calendaring/scheduling software. Content should be based on National Business Education Association (NBEA) content standards. Only grade 9-12 courses based on standards from the 9-12 grade band of NBEA Standards are eligible for high school credit.</p>	BUS, TEC	—

**English Language Arts Section****Table 6. English Language Arts Codes (05xxxx)**

<b>Subject Code</b>	<b>Description</b>	<b>Suggested Subject Area for Credit</b>	<b>Core Subject Area (for HQT)</b>
050102	<b>Reading K-3</b> This course should address the content in the K-3 portion of Ohio's academic content standards for reading. Reading instruction should include the reading of a variety of text (e.g., informational and literary), application of comprehension strategies and the building and extending of vocabulary.	N/A	Reading
050104	<b>Reading 4-6</b> This course should address the content in the 4-6 portion of Ohio's academic content standards for reading. Reading instruction should include the reading of a variety of text (e.g., informational and literary), applications of the comprehension strategies and the building and extending of vocabulary.	N/A	Reading
050106	<b>Reading 7-8</b> This course should address the content in the 7-8 portion of Ohio's academic content standards for reading. Reading instruction should include the reading of a variety of text (e.g., informational and literary), applications of the comprehension strategies and the building and extending of vocabulary.	N/A	Reading
050152	<b>Integrated English Language Arts K-3</b> Instruction should be based on the benchmarks and indicators for grades K-3. Students should read grade appropriate text and use a variety of comprehension strategies for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned task and use effective communication techniques.	N/A	Language Arts
050154	<b>Integrated English Language Arts 4-6</b> Instruction should be based on the benchmarks and indicators for grades 4-6. Students should read grade appropriate text and use a variety of comprehension strategies for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned task and use effective communication techniques.	N/A	Language Arts
050156	<b>Integrated English Language Arts 7-8</b> Instruction should be based on the benchmarks and indicators for grades 7-8. Students should read grade appropriate text and use a variety of comprehension strategies for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned task and use effective communication techniques.	N/A	Language Arts

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
050160	<p><b>Integrated English Language Arts I</b>            Integrated Language Arts Instruction addresses the content and skills of Ohio’s Academic Content Standards for English Language Arts. Instruction should be based on the benchmarks for grades 8-10 and grade level indicators for grade <i>nine</i>. Students will read a variety of texts for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned topics use an appropriate form to communicate their findings and continue to use effective communication techniques.</p>	ENG	Language Arts
050170	<p><b>Integrated English Language Arts II</b>            Integrated Language Arts Instruction addresses the content and skills of Ohio’s Academic Content Standards for English Language Arts. Instruction should be based on the benchmarks for grades 8-10 and grade level indicators for grade <i>ten</i>. Students will read a variety of texts for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned topics use an appropriate form to communicate their findings and continue to use effective communication techniques.</p>	ENG	Language Arts
050180	<p><b>Integrated English Language Arts III</b>            Integrated Language Arts Instruction addresses the content and skills of Ohio’s Academic Content Standards for English Language Arts. Instruction should be based on the benchmarks for grades 11-12 and grade level indicators for grade <i>eleven</i>. Students will read a variety of texts for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned topics, use an appropriate form to communicate their findings and continue to use effective communication techniques.</p>	ENG	Language Arts
050190	<p><b>Integrated English Language Arts IV</b>            Integrated Language Arts Instruction addresses the content and skills of Ohio’s Academic Content Standards for English Language Arts. Instruction should be based on the benchmarks for grades 11-12 and grade level indicators for grade <i>twelve</i>. Students will read a variety of texts for different purposes, utilize the writing process, write for different purposes and different audiences, research self-selected or assigned topics use an appropriate form to communicate their findings and continue to use effective communication techniques.</p>	ENG	Language Arts
050014	<p><b>Intervention English</b>            This course is designed for remedial study with emphasis on the English language arts Academic Content Standards and the Ohio Graduation Test.</p>	ENG	English

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
050119	<p><b>Intervention Reading</b> This course is designed to provide special assistance in the development of reading skills and strategies for students who cannot construct meaning from what they read. Instruction addresses content from the reading benchmarks of the English language arts Academic Content Standards.</p>	ENG	Reading
051905	<p><b>English as a Second Language (ESL)</b> Designed for individuals whose primary language is not English. The study of the English language and culture leading to the ability to function in everyday situations as well as in academic settings, with a special emphasis on Ohio's English Language Arts Academic Content Standards.</p>	ENG	English
050220	<p><b>Grammar and Usage</b> This course emphasizes the editing phase of the writing process, providing students a variety of strategies for refining and editing their own writing. Instruction will be centered around the writing benchmarks of the English language arts Academic Content Standards.</p>	ENG	English
050300	<p><b>Literature</b> This course is designed to provide instruction in the study of print materials, which have noteworthy content and excellence of style. Students apply the reading process to the various genres of literature. Instruction addresses content from the reading benchmarks of the English language arts Academic Content Standards.</p>	ENG	English
050400	<p><b>Composition</b> This course will provide instruction in writing. Students will develop their writing with a focus on expository and persuasive techniques. Journals will be kept and portfolios will be maintained throughout the class. Instruction will be centered around the writing benchmarks of the English language arts Academic Content Standards.</p>	ENG	English
050403	<p><b>Journalism</b> This course includes the study and practice of writing, editing and publishing newspapers and periodicals. Instruction centers on the writing and research standards in the English Language Arts Academic Content Standards.</p>	ENG	English
050500	<p><b>Speech</b> This course covers subject matter and experiences in speech. A wide spectrum of studies and activities from the scientific (voice science) through the humanistic (rhetoric) will be taught. Behavioral sciences (group dynamics) as well as the artistic (oral interpretation of literature) will also be taught.</p>	ENG	English

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
050545	<b>Applied Communications</b> This course gives students practice in communication skills of reading, writing, listening and speaking in their chosen vocations. Students learn to deliver presentations that effectively convey information and persuade or entertain audiences. Instruction centers on the Communication: Oral and Visual Standard in the English Language Arts Academic Content Standards.	ENG	English
059920	<b>English Language &amp; Composition</b> This course is centered around the reading and writing benchmarks of the English language arts Academic Content Standards. It is designed to develop the writing and language skills students need for success in their secondary school program, in their daily lives, and in a global society. Students will compose oral, written, and media text consisting of organized subject matter and experiences emphasized in English.	ENG	English
059930	<b>English Literature &amp; Composition</b> This course is centered around the reading and writing benchmarks of the English language arts Academic Content Standards. It is designed to develop the reading and writing skills students need for success in their secondary school program, in their daily lives, and in a global society. Students will analyze and interpret a variety of genres of literature as well as informational and graphic texts.	ENG	English
059999	<b>Other English/Language Arts Course</b> A topical course that can cover the different aspects of English Language arts. Instruction will be centered around the benchmarks of the English language arts Content Standards.	ENG	English

### ***Family & Consumer Sciences Section***

The courses below earn Home Economics Credit.

**Table 7. Family & Consumer Sciences (Non-Career Technical) Codes (23xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
230000	<b>Family &amp; Consumer Sciences</b> Content from a combination of the various areas of family and consumer sciences.  (This subject code will be deleted in FY13; subject code 230001 is the replacement.)	HEC	—
230001	<b>Family &amp; Consumer Sciences</b> Content from a combination of the various areas of family and consumer sciences.	HEC	—
230100	<b>Clothing and Textiles</b> Nature, acquisition, and the use of clothing and textiles.	HEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
230140	<b>Foods and Nutrition</b> Food and its role in personal and family living.	HEC	—
230200	<b>Child Development and Parenting</b> The developing child and the care and guidance of children.	HEC	—
230300	<b>Consumer Education</b> Consumer education as it relates to the management of homes and families.	HEC	—
230500	<b>Family Living</b> Nurturing human development through the life span.	HEC	—
230600	<b>Housing and Home Furnishings</b> Choosing, equipping and furnishing living environments.	HEC	—

### *Foreign Language Section*

**Table 8. Foreign Language Codes (06xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
060101	<b>Arabic</b> The study of the language and culture of the Arabic world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060102	<b>Chinese</b> The study of the language and culture of the Chinese-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060103	<b>Greek</b> The study of the language, literature, and culture of the Ancient Greeks and their influence on modern civilization.	FLR	Foreign Language
060104	<b>Hebrew</b> The study of the language and culture of the Hebrew-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060107	<b>Latin</b> The study of the language, literature, and culture of Ancient Rome and its influence on modern civilization.	FLR	Foreign Language
060218	<b>Russian</b> The study of the language and culture of the Russian-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060221	<b>Swahili</b> The study of the language and culture of the Swahili-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
060227	<b>Czech</b> The study of the language and culture of the Czech-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060230	<b>French</b> The study of the language and culture of the French-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060235	<b>German</b> The study of the language and culture of the German-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060245	<b>Italian</b> The study of the language and culture of the Italian-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060250	<b>Japanese</b> The study of the language and culture of the Japanese-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060255	<b>Polish</b> The study of the language and culture of the Polish-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060265	<b>Spanish</b> The study of the language and culture of the Spanish-speaking world leading to the ability to communicate in a range of situations and glean meaning from a variety of texts.	FLR	Foreign Language
060900	<b>Foreign Language (Exploratory)</b> A language survey course during which students are exposed to several languages.	FLR	Foreign Language
060207	<b>TESOL–English as a Second Language (ESL)</b> The study of the language and culture of the English-speaking world leading to the ability to function in academic and everyday situations. Designed for individuals whose primary language is not English. This course focuses on English as a foreign language.	FLR	Foreign Language
061050	<b>American Sign Language (ASL)</b> The study of a visual-gestural language used by deaf people in the United States and part of Canada. ASL has its own culture, grammar, and vocabulary; is produced by using the hands, face, and body; and is not derived from any spoken language.	FLR	Foreign Language
069922	<b>Latin: Vergil</b> Students read, translate, analyze, and interpret the works of Vergil.	FLR	Foreign Language
069915	<b>French Literature</b> A formal study of a representative body of literary texts in French for students who have advanced language skills.	FLR	Foreign Language

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
069935	<b>Spanish Literature</b> A formal study of a representative body of literary texts in Spanish for students who have advanced language skills	FLR	Foreign Language
069925	<b>Latin Literature</b> Students read, translate, analyze, and interpret Latin works.	FLR	Foreign Language
069951	<b>Early Language Learning Arabic</b> The study of a language and culture other than English in elementary school-Arabic.	N/A	Foreign Language
069952	<b>Early Language Learning Chinese</b> The study of a language and culture other than English in elementary school-Chinese.	N/A	Foreign Language
069953	<b>Early Language Learning Japanese</b> The study of a language and culture other than English in elementary school-Japanese.	N/A	Foreign Language
069954	<b>Early Language Learning Italian</b> The study of a language and culture other than English in elementary school-Italian.	N/A	Foreign Language
069955	<b>Early Language Learning German</b> The study of a language and culture other than English in elementary school-German.	N/A	Foreign Language
069956	<b>Early Language Learning Hebrew</b> The study of a language and culture other than English in elementary school-Hebrew.	N/A	Foreign Language
069957	<b>Early Language Learning French</b> The study of a language and culture other than English in elementary school-French.	N/A	Foreign Language
069958	<b>Early Language Learning Spanish</b> The study of a language and culture other than English in elementary school-Spanish.	N/A	Foreign Language
069959	<b>Early Language Learning Swahili</b> The study of a language and culture other than English in elementary school-Swahili.	N/A	Foreign Language
069960	<b>Early Language Learning Russian</b> The study of a language and culture other than English in elementary school-Russian.	N/A	Foreign Language
069961	<b>Early Language Learning Latin</b> The study of a language and culture other than English in elementary school-Latin.	N/A	Foreign Language
069962	<b>Early Language Learning Greek</b> The study of a language and culture other than English in elementary school-Greek.	N/A	Foreign Language
069963	<b>Early Language Learning American Sign Language</b> The study of a language and culture other than English in elementary school-American Sign Language.	N/A	Foreign Language

**Health and Physical Education Section****Table 9. Health Education Codes (26xxxx)**

<b>Subject Code</b>	<b>Description</b>	<b>Suggested Subject Area for Credit</b>	<b>Core Subject Area (for HQT)</b>
260101	<b>Health Education</b> Educational activities that promote understanding, attitudes, and practices consistent with individual, family, and community health needs.	HTH	—
260150	<b>Substance Abuse Prevention</b> Subject matter and learning experiences which address drug, alcohol, and tobacco abuse situations including prevention, intervention, discipline, and community resources available to the pupil and to the family.	HTH	—
260200	<b>Safety/First Aid/CPR</b> Subject matter and learning experiences concerned with developing students' awareness and understanding of hazards of everyday living, and the knowledge, habits, attitudes, and skills which will enable them to function at an optimum level in the prevention and care of injury situations.	HTH	—
260410	<b>Sports Medicine</b> Educational activities concerned with the effects of sports and exercise on health and fitness and with the prevention and treatment of athletic injuries.	HTH	—
269999	<b>Other Health</b> A course that is given for High School credits to be applied toward the diploma, but that is different in scope from any of the other SUBJECT CODES described above.	HTH	—

**Table 10. Physical Education Codes (08xxxx)**

<b>Subject Code</b>	<b>Description</b>	<b>Suggested Subject Area for Credit</b>	<b>Core Subject Area (for HQT)</b>
080300	<b>Physical Education</b> A comprehensive subject area which incorporates fundamental motor skills, body control and balance, physical fitness, leisure sports and games skills, cognitive skills, as well as stress management skills.	PHE	—
080405	<b>Lifetime Sports</b> Activities taught throughout the school life with emphasis on learning experiences that can be turned into healthful lifetime skills.	PHE	—

080505	<b>Adapted Physical Education</b> Adapted Physical Education is specially designed instruction in physical education. According to federal law, physical education means the development of (a) physical and motor fitness; (b) fundamental motor skills and patterns; and (c) skills in aquatics, dance, and individual and group games and sports.	PHE	—
080900	<b>Outdoor Physical Education</b> A variety of outdoor leisure and sports activities, such as, fishing, archery, nature study, boating, backpacking, and similar pursuits that enhance students physical health and their understanding of the natural world.	PHE	—
080999	<b>Other Physical Education Course</b> Other Physical Education course for which high school credit can be earned that is different in scope and content from any of the other courses described above.	PHE	—

### Mathematics Section

**Table 11. Elementary and Middle School Level Mathematics Codes (11xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
The following four courses do not earn high school mathematics credit.			
110003	<b>Mathematics K-3</b> Instruction provided by a teacher to multiple groups of students rather than in a self-contained classroom setting. Includes content in the preK-3 portion of Ohio's academic content standards for mathematics.	N/A	Mathematics
110150	<b>Mathematics 4-6</b> Includes content in the 4-6 portion of Ohio's academic content standards for mathematics.	N/A	Mathematics
110175	<b>Mathematics 7-8</b> Includes content in the 7-8 portion of Ohio's academic content standards for mathematics.	N/A	Mathematics
110050	<b>Advanced Mathematics/Pre-Algebra 6-8</b> (not for high school credit) Optional program that accelerates completion of the K-8 program and prepares students to enroll in high school level courses prior to grade 9.	N/A	Mathematics

**Table 12. High School Level Mathematics Codes (11xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
<b>Topic-Focused Mathematics Course Sequence:</b> A four-year program or sequence of courses that address high school level content through topic-focused, discrete courses.			

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
110301	<b>Algebra I</b> In-depth study of algebraic concepts and processes to represent and solve problems that involve variable quantities. Includes using and relating graphical and symbolic representations and techniques.	MTH	Mathematics
111200	<b>Geometry</b> In-depth study of two and three-dimensional geometry including representing problem situations using geometric models, deductive reasoning, and geometry from an algebraic perspective.	MTH	Mathematics
110302	<b>Algebra II</b> Further study of algebraic concepts and processes such as matrices, vectors, and logarithmic and trigonometric functions.	MTH	Mathematics
110099	<b>Advanced Mathematics</b> The study of advanced topics in functions, algebra, geometry, and data analysis including the conceptual underpinnings of calculus.	MTH	Mathematics
<b>Integrated Mathematics Course Sequence:</b> A four-year program or sequence of courses that address the content in the grades 9-12 portion of Ohio's academic content standards using an integrated approach. All content standards, e.g., algebra, geometry, and data analysis, are included in each course.			
110010	<b>Integrated Mathematics I</b> The first course in a four-year sequence which addresses the grades 9-12 portion of Ohio's academic content standards for mathematics using an integrated approach.	MTH	Mathematics
110020	<b>Integrated Mathematics II</b> The second course in a four-year sequence that extends understanding of and addresses new content in algebra, geometry, data analysis, and probability.	MTH	Mathematics
110030	<b>Integrated Mathematics III</b> The third course in a four-year sequence that expands the study of algebra, geometry, data analysis, probability, and/or discrete mathematics to include greater depth of understanding and application.	MTH	Mathematics
110040	<b>Integrated Mathematics IV</b> The fourth course in a four-year sequence that addresses advanced content in algebra, geometry, data analysis, probability, discrete mathematics, and/or conceptual underpinnings of calculus.	MTH	Mathematics
<b>Applied Mathematics Course Sequence:</b> Three-year program or sequence of courses that addresses high school level content through concrete models and real-world situations and with less emphasis on symbol-manipulation and formal mathematical structure. See Program Model A for mathematics on the ODE website for description of applications driven mathematics.			
110480	<b>Applied Algebra</b> Includes courses with an algebra focus such as Basic Algebra, Informal Algebra, or Applied Algebra.	MTH	Mathematics
110490	<b>Applied Geometry</b> Includes courses with a geometry focus such as Basic Geometry, Informal Geometry, or Applied Geometry.	MTH	Mathematics

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
110500	<b>Applied Mathematics</b> Includes new, high school level content with an emphasis on application that expands the study of algebra, geometry, data analysis, probability, and/or discrete mathematics.	MTH	Mathematics

**Table 13. Additional High School Level Mathematics Codes (11xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
111950	<b>Intervention Mathematics</b> (high school credit optional in grades 9-12, not for high school credit below grade 9) Course designed specifically as intervention for students who have taken and not yet reached the proficient standard on the Ohio Graduation Test for mathematics. Prepares students to retake the test, includes little or no new significant content, and is remedial in nature.	MTH	Mathematics
110190	<b>Transition to High School Mathematics</b> (high school credit optional in grades 9-12, not for high school credit below grade 9) Course designed specifically as intervention for students who enter grade 9 not ready for high school level mathematics courses. Use this code for courses that contain little or no new high school level content, such as pre-algebra, general mathematics, business mathematics and consumer mathematics courses based on the benchmarks and indicators found in the grades 6-8 portion of the Ohio Academic Content Standards.	MTH	Mathematics
111300	<b>Discrete Mathematics</b> The study of mathematical properties of sets and systems that have a countable number of elements including applications of systematic counting techniques and algorithmic thinking to represent, analyze, and solve problems.	MTH	Mathematics
111600	<b>Trigonometry</b> In-depth study of trigonometric and circular functions including modeling, graphing, and connecting to polar coordinates, complex numbers, and series.	MTH	Mathematics
111850	<b>Transition to College Mathematics</b> A course designed for students in grades 11-12 making a transition to a college preparatory program. Content includes new topics and revisits some previously addressed topics with increased emphasis on symbol manipulation and mathematical structure.	MTH	Mathematics

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
111500	<p><b>Probability and Statistics</b> In-depth study of probability, data analysis, and statistics including applying the concept of random variables to generate and interpret probability distributions, transforming data to aid in interpretation and prediction, and testing hypotheses using appropriate statistics.</p>	MTH	Mathematics
119550	<p><b>Statistics</b> The purpose of this course is to 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.</p>	MTH	Mathematics
110600	<p><b>Calculus</b> A formal study of topics from calculus that is not associated with the Advanced Placement Program. Includes the study of limit, series, and differentiation and integration.</p>	MTH	Mathematics
119930	<p><b>Calculus AB</b> Calculus AB is designed to be taught over a full high school academic year. It is possible to spend some time on elementary functions and still teach the Calculus AB curriculum within a year. However, most of the year must be devoted to the topics in differential and integral calculus. The courses described here represent college-level mathematics for which most colleges grant advanced placement and/or credit.</p>	MTH	Mathematics
119960	<p><b>Calculus BC</b> Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all topics taught in Calculus AB plus additional topics, but both courses are intended to be challenging and demanding; they require a similar depth of understanding of common topics. The courses described here represent college-level mathematics for which most colleges grant advanced placement and/or credit.</p>	MTH	Mathematics
119999	<p><b>Other Mathematics Course</b> High school level elective course that addresses advanced mathematical topics. Course Other mathematics course for which high school credit can be earned that is different in scope from any of the other SUBJECT CODES described above. Course that address concepts and skills below the 9-12 portion of Ohio's academic content standards for mathematics should be coded as 111950 Intervention Mathematics.</p>	MTH	Mathematics

**Science Section****Table 14. Science Codes (13xxxx)**

<b>Subject Code</b>	<b>Description</b>	<b>Suggested Subject Area for Credit</b>	<b>Core Subject Area (for HQT)</b>
132110	<p><b>Science (PreK-3)</b>            Early childhood science course for grades preK-3 which enables all students to develop standards-based knowledge and skills. Course includes changes on the earth and in the sky, living and nonliving environmental resources, rocks and soil, sky and earth cycles; characteristics and diversity of plants and animals, habitats, interactions between living things and their environment, interdependence and survival of plants and animals in Ohio, heredity; characteristics of objects and how they move, forces, physical interactions and changes, sources of energy, light and sound; natural or manmade objects, tools and materials, building/using technology, purpose, process and effects of science and technology; design process; different ways people learn about science, science in all societies, the nature of science investigation; measurement, tools and safety; ethical practices; scientific inquiry involving wondering, questioning, investigating, and communicating.</p>	N/A	Science
132120	<p><b>Science (4-6)</b>            Middle childhood science course for grades 4-6 which enables all students to develop standards-based knowledge and skills. Course includes rocks, weather, erosion, the Earth and it's place in the solar system; diversity of animal classifications and adaptations, plant classifications and adaptations, ecosystems; forces and motion, physical and chemical changes in matter, thermal and electric energy and energy transfer; renewable and nonrenewable resources ,helpful and harmful results, technology and human lives, design processes, technology and the environment; documentation of science investigations, careers in science, thinking scientifically in daily life; using results and data, explanation of observations and investigations, methods of investigation, facts and theories; safely conducting investigations, measuring and collecting, formulating conclusions, and communicating findings.</p>	N/A	Science

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
132130	<p><b>Science (7-8)</b> Middle childhood science course for grades 7-8 which enables all students to develop standards-based knowledge and skills. Course includes rocks and minerals, weather and climate, space, plate tectonics, theories related to the changes of the Earth's surface; cells, reproduction, diversity and factors of ecosystems, similarities and differences among species, survival of species; chemical and physical changes, nature of energy, conservation of matter and energy, forces and motion, waves; technological design and influences on the quality of life, abilities to do technological design, ethical issues of technology, design solutions, history and relationships between culture, society and technology; skills of scientific inquiry, science practiced in everyday life, validity of scientific experiments, ethical practices, describing and explaining in science; conducting safe investigations using proper tools, applying mathematics skills, evaluating and analyzing variables of data, and drawing valid conclusions based on evidence.</p>	N/A	Science
132212	<p><b>Integrated Sciences I: Physical Sciences</b> High school science course that contributes to the Ohio Graduation Test and develops standards-based knowledge and skills. Course includes atoms, chemical reactions, physical properties, mixtures and solutions, laws of motion, forces, energy, waves, historical perspectives and emerging issues; processes within and on the Earth, Earth's history through geologic evidence, resources; relationship between technology and science; diversity of scientific investigations, scientific theories, scientific literacy, scientific conclusions, and modeling investigations.</p>	SCI	Science
132214	<p><b>Integrated Sciences II: Biological Sciences</b> High school science course that contributes to the Ohio Graduation Test and develops standards-based knowledge and skills. Course includes cells, genetics and DNA, diversity of life, ecology, biological evolution, historical perspectives and emerging issues; processes within and on the Earth, Earth's history through geologic evidence, resources; scientific advances and emerging technologies; nature of science inquiry, ethics in science, science and careers, and modeling investigations.</p>	SCI	Science
132216	<p><b>Integrated Sciences III: Environmental Sciences</b> High school science course to develop standards-based knowledge and skills. Course includes interactions between humans and the Earth; ecosystems, environmental factors, biological evolution, populations, diversity; matter and energy, relationships; human interactions with science and technology, understanding technology; research, science and society; application of science processes, and techniques and research.</p>	SCI	Science

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
132900	<p><b>Intervention Science</b> High school science course, which includes little or no new content from courses previously taken by students who have taken but have not yet successfully passed the Ohio Graduation Test. The variety of standards-based instruction and assessment strategies used in this course is appropriate to assist student preparation for the Ohio Graduation Test.</p>	SCI	Science
132220	<p><b>Physical Sciences</b> High school science course that contributes to the Ohio Graduation Test and develops standards-based knowledge and skills. Course includes atoms, chemical reactions, physical properties, mixtures and solutions, laws of motion, forces, energy, waves, historical perspectives and emerging issues; relationship between technology and science; diversity of scientific investigations, scientific theories, scientific literacy, scientific conclusions, and modeling investigations.</p>	SCI	Science
132230	<p><b>Biological Sciences</b> High school science course that contributes to the Ohio Graduation Test and develops standards-based knowledge and skills. Course includes cells, genetics and DNA, diversity of life, ecology, biological evolution, historical perspectives and emerging issues; scientific advances and emerging technologies; nature of science inquiry, ethics in science, science and careers, and modeling investigations.</p>	SCI	Science
132350	<p><b>Environmental Sciences</b> High school science course to develop standards-based knowledge and skills. Course includes interactions between humans and the Earth; ecosystems, environmental factors, biological evolution, populations, diversity; matter and energy, relationships; human interactions with science and technology, understanding technology; research, science and society; application of science processes, and techniques and research.</p>	SCI	Science
132240	<p><b>Earth and Space Sciences</b> High school science course to develop standards-based skills and concepts in the earth and space sciences. Course includes energy in the Earth system, geochemical cycles, origin and evolution of the Earth system, and origin and evolution of the universe.</p>	SCI	Science

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
130301	<b>Chemistry</b> The study of the composition, structure, properties of, and changes in matter, including the accompanying energy phenomena.	SCI	Science
130302	<b>Physics</b> The study of matter and energy, including the study of phenomena associated with mechanics, heat, wave motion, sound, electricity and magnetism, light, and atomic and nuclear structure.	SCI	Science
132330	<b>Advanced Biology</b> Advanced high school course that contributes to competencies beyond the Ohio Graduation Test. Course develops specialized content to extend connections, depth, and detail of biology, including concepts in anatomy, physiology, ecology, behavior, evolution, genetics, cell biology, microbiology, diversity, growth, and human biology.	SCI	Science
132326	<b>Advanced Chemistry</b> Advanced high school course that contributes to competencies beyond the Ohio Graduation Test. Course develops specialized content to extend connections, depth, and detail of chemistry, including concepts in inorganic, organic, analytical, physical and biochemistry.	SCI	Science
132340	<b>Advanced Earth and Space Sciences</b> Advanced high school course that contributes to competencies beyond the Ohio Graduation Test. Course develops specialized content to extend connections, depth, and detail of the major concepts and principles of earth and space sciences, astronomy, oceanography, meteorology, geology, and natural resources.	SCI	Science
132325	<b>Advanced Physics</b> Advanced high school course that contributes to competencies beyond the Ohio Graduation Test. Course develops specialized content to extend connections, depth, and detail of physics, including concepts in mechanics, electricity, magnetism, thermodynamics, waves, optics, atomic and nuclear physics, radioactivity, relativity, and quantum mechanics.	SCI	Science
139905	<b>Physics B</b> Course includes topics in both classical and modern physics. Course provides instruction in each of the following five content areas: Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics.	SCI	Science
139940	<b>Physics C - Electricity &amp; Magnetism</b> Course provides instruction in each of the following five content areas: electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism.	SCI	Science

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
139950	<b>Physics C – Mechanics</b> Course provides instruction in each of the following six content areas: kinematics; Newton’s laws of motion; work, energy, and power; system of particles and linear momentum; circular motion and rotation; and oscillations and gravitation.	SCI	Science
139997	<b>Other Science</b> A science course offered in high school that contains subject matter that aligns with grades 9 and 10 science standards, but is different in scope than any other subject codes described in this Section.	SCI	Science
139998	<b>Other Advanced Science</b> An advanced science course offered in high school that contains subject matter that aligns with grades 11 or 12 science standards, but is different in scope than any other advanced science codes described in this Section.	SCI	Science

### Social Studies Section

**Table 15. Social Studies Codes (15xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
151209	<b>Social Studies (K-3)</b> Social studies instruction offered primarily for students in grades K-3.	N/A	—
151210	<b>Social Studies (4-6)</b> Social studies instruction offered primarily for students in grades 4-6.	N/A	—
151201	<b>Social Studies (7-8)</b> Integrated study using various social studies disciplines. (for grades 7-8)	N/A	—
150110	<del><b>Anthropology (7-8)</b> The study of the physical, social and cultural development of humans. (for grades 7-8)</del>  (FY12 is the last year for this course; it will be deleted in FY13.)	N/A	—
150610	<b>Economics (7-8)</b> The study of how society uses its resources to satisfy the desires of its citizens for goods and services. (for grades 7-8)	N/A	Economics
150701	<b>Geography (7-8)</b> The study of spatial aspects of human existence. (for grades 7-8)	N/A	Geography
150305	<b>Government (7-8)</b> The study of institutions and processes through which decisions are made for a society. (for grades 7-8)	N/A	Civics and Government
150807	<b>History (American) (7-8)</b> The study of America’s past. (for grades 7-8)	N/A	History

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
152310	<b>History (Integrated) (7-8)</b> The integrated study of American history and world history. (for grades 7-8)	N/A	History
152410	<del><b>History (Regional) (7-8)</b> The study of a region's past. (for grades 7-8)</del>  (FY12 is the last year for this course; it will be deleted in FY13.)	<del>N/A</del>	<del>History</del>
150888	<b>History (World) (7-8)</b> The study of the world's past. (for grades 7-8)	N/A	History
151131	<del><b>Psychology (7-8)</b> The study of the human mind and its influence on behavior. (for grades 7-8)</del>  (FY12 is the last year for this course; it will be deleted in FY13.)	<del>N/A</del>	<del>—</del>
150210	<del><b>Social Psychology (7-8)</b> The study of individual human behavior in groups. (for grades 7-8)</del>  (FY12 is the last year for this course; it will be deleted in FY13.)	<del>N/A</del>	<del>—</del>
151207	<del><b>Sociology (7-8)</b> The study of social relationships, institutions, and group behavior in societies. (for grades 7-8)</del>  (FY12 is the last year for this course; it will be deleted in FY13.)	<del>N/A</del>	<del>—</del>
150100	<b>Anthropology</b> The study of the physical, social and cultural development of humans.	SOC	—
150600	<b>Economics</b> The study of how society uses its resources to satisfy the desires of its citizens for goods and services.	SOC	Economics
150700	<b>Geography</b> The study of spatial aspects of human existence.	SOC	Geography
150300	<b>Government (American)</b> The study of institutions and processes through which decisions are made for the United States.	SOC	Civics and Government
150308	<b>Government/Economics (American)</b> The study of institutions and processes through which decisions are made for the United States and the study of how the United States uses its resources to satisfy the desires of its citizens for goods and services.	SOC	Civics and Government
150810	<b>History (American)</b> The study of America's past.	SOC	History
152300	<b>History (Integrated)</b> The integrated study of American history and world history.	SOC	History
152400	<b>History (Regional)</b> The study of a region's past.	SOC	History

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
150890	<b>History (World)</b> The study of the world's past.	SOC	History
152100	<b>Integrated Social Studies</b> Integrated study using various social studies disciplines.	SOC	—
150400	<b>Intervention Social Studies</b> Remedial study in preparation for the Ohio Graduation Tests with little or no significant new content.	SOC	—
151121	<b>Psychology</b> The study of the human mind and its influence on behavior.	SOC	—
151205	<b>Social Psychology</b> The study of individual human behavior in groups.	SOC	—
151300	<b>Sociology</b> The study of social relationships, institutions, and group behavior in societies.	SOC	—
152810	<b>European History</b> The study of Europe's past.	SOC	History
159960	<b>Government &amp; Politics (Comparative)</b> The comparative study of the institutions and processes through which decisions are made for societies.	SOC	Civics and Government
159950	<b>Government &amp; Politics (United States)</b> The study of institutions and processes through which decisions are made for the United States.	SOC	Civics and Government
159930	<b>Macroeconomics</b> The study of the functioning of entire economies.	SOC	Economics
159940	<b>Microeconomics</b> The study of the behavior of individual households, firms and markets.	SOC	Economics
152150	<b>Issues in Social Studies</b> The study of issues related to the social studies utilizing applications of relevant disciplines.	SOC	—
159999	<b>Other Social Studies</b> The study of specialized social studies topics (including community service courses per ORC 3313.60.5).	SOC	—

### Technology Section

**Table 16. Computer Science Codes (29xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
<p>The following courses do not earn high school technology credit. This instruction may also be provided by a teacher to multiple groups of students rather than in a self-contained classroom setting. The K-8 content across Ohio's Technology standards defines achievement in meeting the No Child Left Behind 8<sup>th</sup> Grade Technology Literacy Requirement. Instruction is most effective when integrated with curricular components of other academic content areas.</p>			

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
290035	<b>Computer/Multimedia Literacy K-3</b> Includes content in the K-3 portion of Ohio's academic content standards for technology that focuses on the use of educational technology for learning.	N/A	—
290040	<b>Computer/Multimedia Literacy 4-6</b> Includes content in the 4-6 portion of Ohio's academic content standards for technology that focuses on the use of educational technology for learning.	N/A	—
290045	<b>Computer/Multimedia Literacy 7-8</b> Includes content in the 7-8 portion of Ohio's academic content standards for technology including keyboarding, word processing, productivity, communication and information tools.	N/A	—
Computer Science codes include computer/multimedia literacy, software, Internet, systems/networking and programming. All courses should be based on advanced topics aligned with the 9-12 section of the Ohio Technology academic content standards. Credit cannot be given for concepts below 9th – 12th grade.			
290050	<b>Computer/Multimedia Literacy</b> Course focuses on advanced concepts in 9-12 portion of Ohio's technology academic content standards. Instruction is most effective when integrated or linked to other content areas.	TEC	—
290100	<b>Technology-Productivity Tools</b> Course focuses on advanced concepts in 9-12 portion of Ohio's technology academic content standards that increase personal productivity and manage information. Instruction is most effective when integrated or linked to other academic areas.	TEC	—
290110	<b>Technology-Communication Tools</b> Course focuses on advanced concepts in the 9-12 portion of Ohio's technology academic content standards including identifying purpose, audience and communication strategy. Instruction is most effective when integrated or linked to other academic content areas.	TEC	—
290120	<b>Technology-Problem-Solving Tools</b> Course focuses on advanced concepts in the 9-12 portion of Ohio's technology academic content standards including inquiry/problem-solving skills and technology tools. Instruction is most effective when integrated or linked to other academic content areas.	TEC	—
290130	<b>Internet Searching</b> Course focuses on advanced concepts in the 9-12 portion of Ohio's technology academic content standards including Internet search strategies, search engine ranking methods and Web site evaluation.	TEC	—
290075	<b>Technology: Electronic Resources</b> Course focuses on advanced concepts in the 9-12 portion of Ohio's technology academic content standards including information literacy concepts and use of technology tools to conduct research. Topics include use of Internet and other electronic information resources.	TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
290140	<b>Technology and Ethics</b> Course focuses on advanced concepts in the 9-12 portion of Ohio's technology academic content standards and library guidelines including copyright, intellectual property, biotech and other current ethical concerns.	TEC	—
290150	<b>Computer Graphics</b> Course includes design techniques used to generate computer graphics. Topics may include use of tools to draw, import, edit, create, animate images, photos, original artwork, etc.	TEC	—
290200	<b>Computer Science</b> Course includes study and use of programming languages, i.e., BASIC, COBOL, DOS, Visual BASIC, C++, HTML, XML, MSDN, etc. Topics also include operating systems, servers, networks, etc.	TEC	—
290310	<b>Computer Science A</b> The study of programming methodology with an emphasis on problem solving and algorithm development. Also includes study of data structures and abstraction, but not to the extent as covered in Computer Science AB.	TEC	—
290320	<b>Computer Science AB</b> Includes all topics of Computer Science A, as well as a more formal and more in-depth study of algorithms, data structures and data abstraction.	TEC	—
290160	<b>Web Site Development</b> Course includes Web site design, posting/removing Web sites to/from Web server and Web programming HTML, XML, etc. Course should cover Universal Design and other accessibility methods.	TEC	—
290165	<b>Advanced Web Site Development</b> Course should include advanced Web programming and applications, Universal Design and other accessibility methods.	TEC	—
290170	<b>Networking</b> Course includes operating systems, printers/print servers, network configuration and servers, etc.	TEC	—
290180	<b>Computer Repair</b> Course includes troubleshooting, repair, system/network reconfiguration, help desk practices, etc.	TEC	—
299999	<b>Other Computer Technology</b> A course that is given for High School credit to be applied toward the diploma, but that is different in scope from any of the other SUBJECT CODES described above.	TEC	—

**Table 17. Information Literacy Codes (20xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
The following courses do not earn high school technology credit. This instruction may also be provided by a teacher to multiple groups of students rather than in a self-contained classroom setting. The K-8 content across Ohio's Technology standards defines achievement in meeting the No Child Left Behind 8th Grade Technology Literacy Requirement. Instruction is most effective when integrated with curricular components of other academic content areas.			
200910	<b>Information Literacy K-3</b> Instruction that includes content in the K-3 portion of Ohio's technology academic content standards and library guidelines.	N/A	—
200915	<b>Information Literacy 4-6</b> Instruction that includes content in the 4-6 portion of Ohio's technology academic content standards and library guidelines.	N/A	—
200920	<b>Information Literacy 7-8</b> Instruction that includes content in the 7-8 portion of Ohio's technology standards and library guidelines including Internet searching, evaluation of Web sites and other electronic resources.	N/A	—
Information literacy codes focus on acquisition, interpretation, and dissemination of information. All courses should be based on advanced topics aligned with the 9-12 section of the Ohio Technology academic content standards and Library Guidelines. Credit cannot be given for concepts below 9th – 12th grade.			
200700	<b>Library Science</b> Course focuses on how information is organized, accessed, and evaluated, including use of information management systems in school, public, academic, and government libraries.	TEC	—
200905	<b>Information Literacy</b> Instruction focuses on recognizing the need for information and developing the skills to locate, evaluate and utilize the information. Learning experiences include information retrieval and critical thinking skills that enable students to acquire, interpret, evaluate, create, and communicate information. Information sources include print, nonprint, electronic, Internet-based resources accessed via the school library, school district, Internet, statewide/national networks, and other providers.	TEC	—

**Table 18. Technology Education Codes (10xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
The following courses do not earn high school technology credit. This instruction may also be provided by a teacher to multiple groups of students rather than in a self-contained classroom setting. The K-8 content across Ohio's Technology standards defines achievement in meeting the No Child Left Behind 8 <sup>th</sup> Grade Technology Literacy Requirement. Instruction is most effective when integrated with curricular components of other academic content areas.			

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
102285	<b>Technological Literacy K-3</b> Instruction that includes content in the K-3 portion of Ohio's academic content standards for technology.	N/A	—
102290	<b>Technological Literacy 4-6</b> Instruction that includes content in the 4-6 portion of Ohio's academic content standards for technology.	N/A	—
102295	<b>Technological Literacy 7-8</b> Instruction that includes content in the 7-8 portion of Ohio's academic content standards for technology.	N/A	—
<b>Technology Education:</b> A comprehensive study of the knowledge and processes necessary in designing, making, developing, producing, using, managing, and assessing of technological systems and products. Dimensions of technology include assessing impacts and consequences of technology, nature and history of technology, and connections. Technological systems and products are those systems and products that change the world around us to satisfy our needs and wants. In particular Technology Education focuses on the systems and products of the energy/power/transportation, manufacturing, construction, communication, and bio-related/chemical fields. These activities may take place in thematic units at the elementary level, general technology courses at the middle and high school levels, specific high school systems courses, Tech Prep and Pathways courses at the high school level, and modules and problem-based learning integrated with mathematics, science, language arts, social studies and arts teams at all levels.			
102300	<b>Technology Education</b> Comprehensive action-based courses concerned with the evolution, utilization, and significance of technology and its impact on industry, including its organization, personnel, systems, techniques, resources, products, and socio cultural aspects.	TEC	—
107450	<b>Foundations of Technology</b> Prepares students to understand and apply technological concepts and processes that are the cornerstone for the high school technology program. Group and individual activities engage students in creating ideas, developing innovations and engineering practical solutions. Technology content, resources and laboratory/classroom activities apply student applications of science, mathematics and other school subjects in authentic situations. This course will focus on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities, with the goal of students developing the characteristics of technologically literate citizens.	TEC	—
101700	<b>Research and Development</b> The study of industrial-technical problems, including provisions for individual or group investigations of problems and opportunities to evaluate their solutions by designing, constructing, and testing products.	TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
101720	<b>Design</b> Course includes design topics from the 9-12 portion of Ohio's technology academic content standards; including identifying and producing a product or system using a design process and evaluating the final solution, and communicating findings; recognizing the role of teamwork in engineering design and of prototyping in the design process; and understanding and applying research, development, and experimentation to problem-solving.	TEC	—
101730	<b>Issues and Problems in Technology</b> The study of themes concerning technology, society, and the environment.	TEC	—
<b>Construction Technology Systems:</b> A comprehensive study of the knowledge and processes in designing, making, developing, producing, using, managing, and assessing of technological systems and products to build structures on site. In particular courses that are part of the construction technology systems focus on project planning, architectural design and drafting, site preparation, building the structure, and maintaining the structure.			
100100	<b>Construction</b> The study of the technology and the socioeconomic contributions of those industries concerned with residential, civic industrial, civil, and transportation structures.	TEC	—
100800	<b>Home Mechanics</b> The study of the tools, materials, and processes involved in the up-keep and repair of the home, its equipment and devices.	TEC	—
<b>Manufacturing Technology Systems:</b> A comprehensive study of the knowledge and processes in designing, making, developing, producing, using, managing, and assessing of technological systems and products in manufacturing facilities. In particular courses that are part of manufacturing technology systems focus on mechanical design and drafting, materials, and processes (including woods, metals, plastics), production, robotics, and automation systems, and specific trades/crafts.			
101300	<b>Manufacturing</b> The study of the technology and the socioeconomic contributions of industries concerned with the creation of durable consumer products.	TEC	—
101350	<b>Robotics</b> Application of processes and knowledge in the design, development, and use of systems to manage and control devices. Products of student work in robotics may be descriptive and/or functional models of technology applications across all systems areas.	TEC	—
101800	<b>Service Industries</b> The study of the technology of industries concerned with the maintenance and repair of consumer and/or industrial products.	TEC	—
101900	<b>Woods Processes</b> Information and skills concerned with woods, including various manufactured wood products, focusing on the technology employed in the manufacture and construction of products using woods and related factors such as occupations, economics, and consumer information.	TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
101410	<b>Metals Processes</b> Information and skills concerned with metals including the products manufactured from metals and the technology employed in the production, processing, and use of metals, as well as related factors such as occupations, economics, and consumer information.	TEC	—
101500	<b>Plastics</b> Information and skills concerned with the production, processing, and use of plastics, composites and related factors such as occupations, economics, and consumer information.	TEC	—
100200	<b>Industrial Crafts</b> Information and skills concerned with handcrafts and the craft industry, including its tools, materials, processes, products, and occupations.	TEC	—
<b>Communication Technology Systems:</b> A comprehensive study of the knowledge and process in designing, making, developing, producing, using, managing, and assessing of technological systems to products for transferring graphic and electronic messages. Computer modeling and information technology applications are critical to all technology systems areas. In particular courses that are part of communication technology systems focus on existing and emerging information technologies for encoding, transmitting, receiving, storing, retrieving, and decoding of graphic and electronic messages.			
100300	<b>Drafting</b> Information and skills concerned with conveying ideas or illustrations graphically through drawings, charts, sketches, maps, and graphs, and the related factors such as the role of drafting in history and industry.	TEC	—
100401	<b>Electricity/Electronics</b> Information and skills concerned with electrical energy including theory, applications, and control as it relates to electrically powered equipment, to various kinds of communications equipment, and to related factors such as occupations, economics, and consumer information.	TEC	—
100700	<b>Graphic Arts</b> The study of information and skills concerned with graphic reproduction, as well as related factors such as occupations, economics, and consumer information.	TEC	—
102000	<b>Communications</b> Provides an introduction to technical communication systems and processes. Students use a variety of technologies and media to create, implement, and evaluate a network to solve a communication problem.	TEC	—
102500	<b>Industrial Computer Applications</b> Experiences with computer applications across the technological systems areas. Selected activities covering computer hardware, software, and interface device applications to develop understanding of industrial uses of computers.	TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
<p><b>Energy/Power/Transportation Technology Systems:</b> A comprehensive study of the knowledge and process in designing, making, developing, producing, using, managing, and assessing of technological systems to produce products for the transmission of energy and power, and the transportation of goods and people. In particular technology courses focus on energy and power sources or devices, the transformation of energy and power from one form to another, the transmission of energy and power from one form to another, and the sale use of power. In addition transportation focuses on the systems and products used to transport goods and people.</p>			
101610	<p><b>Power Mechanics</b> Information and skills concerned with the various forms of power, including its generation, transmission, and utilization.</p>	TEC	—
102100	<p><b>Energy/Power/Transmission</b> Beginning-level course designed to provide a conceptualized study of basic machines. Students obtain a basic understanding and develop skills needed to identify, build, maintain, test, and develop machines.</p>	TEC	—
<p><b>Bio-Related and Chemical Technology Systems:</b> A comprehensive study of the knowledge and process in designing, making, developing, producing, using, managing, and assessing of technological systems to produce products with bio-related and chemical applications. In particular technology courses focus on practical application of biological organism and chemical processes to make or modify products, the production process techniques related to agriculture, chemical, and medical technology products, and the human interface with technology in managing the artificial and natural environment.</p>			
103050	<p><b>Bio-Related and Chemical Technology Systems</b> Comprehensive study of the knowledge and process in designing, making, developing, producing, using, managing, and assessing of technological systems to produce products with bio-related and chemical applications.</p>	TEC	—

## CAREER-TECHNICAL EDUCATION SECTION

### Workforce Development Section

**Table 19. Career Field 01: Environmental & Agricultural Systems Codes (01xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010001	<b>Environmental and Agricultural Science</b> <del>A sequence of introductory courses designed to deliver basic knowledge and skills across all disciplines and industries associated with agriculture, horticulture, mechanics, and natural resources. Communications, business principles and leadership skill development are essential to the program.</del>	CTA	—
010105	<b>Agriculture, Food and Natural Resources</b> This is the first course in the Agricultural and Environmental Systems career field. It introduces students to the pathways that are offered in the Agricultural and Environmental Systems career field. As such, learners will obtain fundamental knowledge and skills in food science, natural resource management, animal science and management, plant and horticultural science, power technology and biotechnology. Students will be introduced to the FFA organization and begin development of their leadership ability.	CTA	—
010110	<b>Communications and Leadership</b> Students will analyze attributes and capabilities of those in leadership positions and develop their communication and leadership skills in authentic situations. The course prepares students to apply journalistic, communication and broadcasting principles to the development, production, and transmittal of agricultural and environmental systems information.	CTA	—
010115	<b>Business Management for Agricultural and Environmental Systems</b> Learners will examine elements of business, identify organizational structures and identify and apply management skills. Learners will develop business plans, financial reports and strategic goals for new ventures or existing businesses. Learners will use marketing concepts to evaluate the marketing environment and develop a marketing plan with marketing channels, product approaches, promotion and pricing strategies. Learners will practice customer sales techniques and apply concepts of ethics and professionalism while understanding related business regulations.	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010120	<p><b>Structural Engineering</b> Students will apply principles of engineering and design along with an understanding of the properties and uses of construction materials to buildings and structures used in agriculture, horticulture and natural resources. The course will focus on the study and utilization of wood and lumber, metals, concrete and masonry, pipes and plumbing, and electrical systems. Students will design, plan, build and calculate costs-benefits analysis for construction projects while abiding by all building code and safety regulations.</p>	CTA	—
010150	<p><del><b>Animal Bioscience</b> A life science course that applies basic animal physiology and anatomy, animal health, animal nutrition, reproductive physiology and breeding systems, genetics and animal improvement to agronomic animals, companion animals and wildlife species. This is an activity driven course with an inquiry approach, providing a meaningful and relevant application of animal biology to post-secondary fields of study and 21st century careers in agriculture, food and natural resources.</del></p>	CTA	—
010155	<p><b>Plant and Horticultural Science</b> This first course in the pathway focuses on the broad knowledge and skills required to research, develop, produce and market agricultural, horticultural, and native plants and plant products. Students will apply principals and practices of plant physiology and anatomy, plant protection and health, reproductive biology in plants, influences in bioengineering, plant nutrition and disorders. Environmental aspects of irrigation, chemical application, soils, and pest management will be studied and applied. Projects and activities will enable students to develop communication, leadership, and business management skills.</p>	CTA	—
010190	<p><b>Agricultural and Environmental Systems Capstone</b> The capstone course is an opportunity for students to solve problems and demonstrate that they have achieved the requisite knowledge and skills in their chosen Agricultural and Environmental Systems career field pathway. The course is designed to assess cognitive, affective and psychomotor learning and to do so in a student-centered and student-directed manner. The capstone requires the application of learning to a project that serves as an instrument of evaluation.</p>	CTA	—
010201	<p><del><b>Agricultural and Industrial Power Technology</b> Applies principles of engineering in power, construction technology gaining understanding of operation, maintenance, repair of power, electrical, hydraulic and mechanical systems. Communications, business principles and leadership skill development are essential.</del></p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010210	<p><b>Agricultural and Industrial Power</b> The Agricultural and Industrial Power course will introduce students to the breadth of the Agricultural and Industrial Power Technology pathway. Students will learn the principles of agricultural and industrial power technology equipment systems including electronic, electrical, engines, fuel, hydraulics, and power trains. Additionally, students will learn to operate and maintain agricultural and industrial equipment.</p>	CTA	—
010215	<p><b>Electronic and Electrical Systems</b> In the <i>Electronic and Electrical Systems</i> course, students will diagnose problems, test and repair electronic and electrical components. Students will learn physical principles of electricity and apply such to the proper maintenance, diagnosis and repair of electrical circuits. Students will learn the physical and mathematical principles of electronics, controllers and sensors and will learn the operation of onboard computers and programmable controllers.</p>	CTA	—
010220	<p><b>Engines and Fuel Systems</b> In the <i>Engines and Fuel Systems</i> course, students will learn basic engine information and operations; different kinds of corollary systems; how to use test equipment and service tools; plus techniques for diagnosis and testing. Students will learn the different kinds of fuel systems, fuels and their characteristics, designations, and additives. Students will diagnose fuel system problems including the identification of parts failure and will be able to make necessary repairs.</p>	CTA	—
010225	<p><b>Hydraulics and Pneumatics</b> In the <i>Hydraulics and Pneumatics</i> course, students will learn physical principles of hydraulics. They will diagnose problems, test system components, learn how to properly maintain hydraulic circuits and diagnose and test problem areas in hydraulics systems of agricultural and industrial power equipment.</p>	CTA	—
010230	<p><b>Power Trains</b> In the <i>Power Trains</i> course, students will learn the physical principles of power trains, the different components that transfer and control power, and how power trains are designed to function. Students will also learn how to adjust and maintain a power train system as well as how to diagnose and test problem areas.</p>	CTA	—
010235	<p><b>Outdoor Power Technology</b> The <i>Outdoor Power Technology</i> course trains students in technical knowledge and skills necessary to maintain, troubleshoot and repair small power equipment used in agriculture, horticulture and natural resource management. Students will learn the theory of power and progress through aspects of 2- and 4-stroke engines, electrical systems, fuel systems, and drive train systems that make up modern small engine powered equipment.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010240	<p><b>Power Sports</b> In the <i>Power Sports</i> course, students will learn the theories of operating systems and the maintenance practices for power sport vehicles used off road or on the water. Students will learn principles of power sports vehicles including diagnosis, service, and repair. This courses covers core information on power sport internal combustion engines, primary drive operation, transmission power flow, fuel system operation, and electrical and suspension systems.</p>	CTA	—
010301	<p><del><b>Agribusiness and Production Systems</b> Applies principles of economics, business management and marketing in both an entrepreneur/manager and an employee role to the leadership, planning, developing and analyzing of business enterprises related to agriculture, food and natural resources.</del></p>	CTA	—
010601	<p><del><b>Horticulture</b> Applies principles of plant anatomy, nutrition, reproduction, genetics, health and artistic design to production, management, processing and marketing of ornamental plants, landscapes and floral designs. Communications, business principles and leadership skill development are essential to the program.</del></p>	CTA	—
010610	<p><b>Greenhouse and Nursery Management</b> The course will apply principles of science, engineering, and business to support the sustainable propagation and production of plants in a commercial nursery or greenhouse facility. Management of soil/media, water and nutrient distribution, lighting, ventilation and temperature, and pests will be learned and applied. Students will demonstrate knowledge of propagation methods, plant health, nutrition, and growth stimulation. Students will develop successful business, communication, marketing, and sales strategies for use in the greenhouse and nursery industries.</p>	CTA	—
010615	<p><b>Landscape Systems Management</b> Students will learn methods for establishing and managing landscapes to promote growth and balance. The classification and care of woody and herbaceous landscape plants will be covered in-depth. Students will learn to optimize growing conditions, balance nutrients, and manage pests and disease. Horticultural skills including proper planting, fertilizing, and pruning techniques will be practiced while safely operating well maintained specialized equipment. The implications of landscape installation on the environment will be analyzed and eco-friendly practices applied. Students will employ communication, business, and management strategies appropriate for the industry.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010620	<p><b>Agronomic Systems</b> This course focuses on the knowledge and skills required to research, develop, produce and market major agricultural and horticultural crops. Cultural and sustainable production practices will be examined. Students will apply scientific knowledge of plant development, nutrition and growth regulation. The knowledge and skills needed to manage water, soils, and pests related to agronomic crops will be learned. Students will employ communication, business, and management strategies appropriate for the industry.</p>	CTA	—
010625	<p><b>Floral Design and Marketing</b> Students will use principles and elements of design to create various types and styles of floral arrangements with natural and artificial plants and plant products. Identification of ornamental plants and cut flowers, use of design materials, and storage and handling applications will be examined. Students will develop successful business, communication, marketing, and sales strategies for use in the floral industry.</p>	CTA	—
010630	<p><b>Landscape Design and Build</b> Students will develop skills in landscape planning, design, estimation and installation. Principles and elements of design and engineering will be emphasized. Students will design full-featured landscapes using computer-aided technology, construct hardscapes and install artificial lighting and water systems. Environmental effects of a landscape will be evaluated and eco-friendly techniques applied. Students will employ communication, business, and management strategies appropriate for the industry.</p>	CTA	—
010635	<p><b>Turf Science and Management</b> The course will apply principles of science, engineering, and business to support the establishment and maintenance of residential, athletic and recreational turf. Instruction in establishment, care, production, and marketing of turf grass along with safe operation and maintenance of specialized equipment will be provided. Environmental awareness and conservation practices will be applied. Students will employ communication, business, and management strategies appropriate for the industry.</p>	CTA	—
010701	<p><b>Natural Resource Management</b> <del>Applies science to management and protection of renewable and non-renewable resources; includes fundamentals of land use, watersheds, wildlife, fisheries and forestry. Communications, business principles and leadership skill development are essential to the program.</del></p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010710	<p><b>Natural Resources</b> Learners will apply science principles and management practices to the protection of renewable and non-renewable natural resources. Students will learn fundamentals of land use as well as watershed, wildlife, fishery and forest management. Students will be introduced to management practices related to managing air and water quality along with requirements for managing solid and liquid waste. Communications, business principles and leadership skill development are essential to the program.</p>	CTA	—
010715	<p><b>Energy Systems Management</b> Students will apply basic principles of energy accounting, thermodynamics and heat transfer, energy conversion and efficiency to heating, power generation and transportation. Students will apply the principles and practices needed for managing both renewable and non-renewable energy sources including, solar thermal, hydrogen generation, photovoltaic, hydroelectric, biomass use, geothermal heat transfer, and fossil fuel. Future energy systems and energy use scenarios are investigated, with a focus on promoting the use of renewable energy resources and technologies.</p>	CTA	—
010716	<p><b><u>Bio Energy</u></b> <u>Students are introduced to the scientific and technical processes of biofuel/bioenergy production. Learners will evaluate the energy conversion process and methods for optimizing the fermentation process. Students will identify the systems and components employed by fermentation systems and communicate safe handling techniques of equipment, biomass, effluent and biogas. A focus will be given to environmental impacts, life-cycle analysis, and economic analysis of bioenergy production.</u></p>	<u>CTA</u>	=
010717	<p><b><u>Solar and Wind Energy</u></b> <u>Students will specify system options by conducting Energy Site Assessments by using and interpreting resource maps, performance data, zoning requirements and interferences, installation timelines and price. Students will read plans, lay out components and assemble electrical systems. Students will perform system checkouts and interpret results from mechanical and electrical diagnostic reports and compile and maintain system records. Students will apply safety regulations and requirements and identify and mitigate public safety issues during system installations.</u></p>	<u>CTA</u>	=

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010718	<p><b><u>Oil and Gas Operations</u></b>  <u>Students will develop the skills applicable to careers in petroleum, natural gas and coal industries. They will learn practices related to exploration, leasing, surveying, drilling, geophysical logging and completion process. Students will be familiar with wellhead and surface production equipment and interpret production histories and graphs. Students will learn sampling, analysis, monitoring and control techniques for effective environmental management in the extractive industries and the principals of metering, sales and marketing.</u></p>	CTA	—
010720	<p><b>Environmental Science for Agriculture and Natural Resources</b>  Learners will study relationships between organisms and their environment. Principles of biogeochemical cycles, air-water-land relationships, non-point pollution, and wetlands will be applied. Learners will examine economic fundamentals of resource development, agriculture sustainability, energy needs and pollution control. Learners will analyze and interpret data gathered from ecosystems, population studies, forest management practices, pesticide use, land use and waste management. Learners will develop responses to environmental problems and develop management strategies for responsible conservation and resource development.</p>	CTA	—
010725	<p><b>Environmental Systems Management</b>  Learners will analyze and interpret biological, chemical and physical properties of soil, water and air. They will determine the source and type of environmental contamination, evaluate pollution control measures and be prepared to respond accordingly. Learners will be able to monitor treatment processes for potable water, waste water and solid waste. Learners will develop and implement environmental plans using principles governing ecosystems in relation to resource development and industrial processes.</p>	CTA	—
010730	<p><b>Forestry and Woodland Ecosystems</b>  Learners will apply principles of botany, dendrology and silviculture to the management of forests and forest ecosystems. Learners will apply principles of timber cruising with surveying and mapping techniques to take forest measurements. Learners will develop the knowledge and skills necessary for forest reforestation, timber stand improvement, timber harvesting and forest product utilization. Learners will operate and maintain forestry equipment, apply fire management practices, and understand related regulations, laws, and policy issues.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010735	<p><b>Park and Recreational Management</b> Students will design facilities, develop educational programs and manage resources for use in public recreation. Students will maintain and operate equipment for maintaining wildlife habitat and supporting a variety of public recreational activities. Students will develop marketing and programming skills for park development, apply management practices to park operations and learn the systems required to maintain public safety.</p>	CTA	—
010740	<p><b>Urban Forestry</b> The learner will promote the care and management of trees for residential and commercial purposes. Learners will apply principles of soil management, dendrology and pest management to the care and management of trees. Learners will analyze budgets; and develop short and long-range management plans that balance environmental and economic goals and that support sustainable land use patterns. Principles of rigging, advanced rope techniques, and chainsaw applications for tree pruning and removal will be learned.</p>	CTA	—
010745	<p><b>Wildlife and Fisheries</b> Learners will apply the principles and practices of resource conservation and management to fish and wildlife populations. Students learn to properly handle wild animals, principles of wildlife nutrition, inventory practices, water quality parameters and testing, and natural and artificial propagation. Learners will apply principles of facility design and layout for managing fish populations. Learners will research and evaluate the impacts of various land practices, legislation, and human activities on habitats and populations.</p>	CTA	—
010901	<p><del><b>Animal Science and Management</b> Applies principles of animal anatomy, physiology, genetics, behavior and nutrition to the research and development, selection and reproduction, health, and management of animals in a domestic and/or natural environment.</del></p>	CTA	—
010910	<p><b>Animal Science and Technology</b> Learners will develop business leadership, problem-solving and communication skills in relation to the science and technology of animals. Students will learn responsible animal management principles and routine husbandry practices in relation to animal welfare and behavior. Learners will identify and describe the anatomy and physiology of monogastric and ruminant organisms as it applies to nutrition, reproduction, and animal health. Learners will investigate animal genetics and how it impacts principles of animal improvement, selection and marketing.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010915	<p><b>Animal Nutrition, Health and Reproduction</b></p> <p>Learners will apply principles of nutritional management for various classes of animals. Learners will analyze nutritional content/quality of feeds; formulate rations; develop feeding recommendations; identify deficiency symptoms and implement corrective methods as needed. Care/management plans are developed that reflect the classification of animals and follows best practices and legal compliance. Learners will monitor/evaluate the quality of animal habitats and estimate carrying capacity as it relates to the impact of the environment and animal health.</p>	CTA	—
010920	<p><b>Livestock Science</b></p> <p>Learners will apply principles of nutrition, health and reproduction to the management of animals, poultry and fish in production agriculture. Learners will demonstrate understanding of anatomy and physiology and apply genetic principles for improvement. Learners will apply knowledge of animal behavior, welfare, and husbandry principles. Learners will evaluate body/carcass composition and apply marketing principles to the sale and distribution of livestock products. Learners will employ communication, business, and management strategies appropriate for the industry.</p>	CTA	—
010925	<p><b>Small Animal Science</b></p> <p>Learners apply principles of nutrition, health and reproduction to the management of animals intended for companionship or research. Through interpretation, problem-solving and diagnostic methods, the learners develop and implement management programs that reflect responsible animal behavior, welfare and husbandry practices. Learners implement principals and practices of nutritional management, responsible breeding and disease management. Safe handling, grooming and training skills are developed and applied. Learners identify business management procedures and understand the importance of business regulations.</p>	CTA	—
010930	<p><b>Veterinary Science</b></p> <p>Learners will develop knowledge of veterinary pharmacology, radiology and imaging techniques, principles of surgery, safe laboratory skills, and the concepts of ethics and professionalism in the work place. Learners will develop skills in inquiry and statistical methods. Learners will describe causes, symptoms, and treatment of common diseases with special emphasis on developing preventative health management plans and breeding programs. Learners will utilize principles of technology to manage information systems, and research issues affecting the industry.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
010935	<p><b>Equine Science and Management</b> Learners are introduced to responsible equine management principals and routine husbandry practices in relation to equine behavior methodology and legal compliance. Learners will apply knowledge of health and nutrition when designing preventative health care plans, breeding plans, and feed management programs. Safe handling, grooming, training, equipment selection/maintenance/use and emergency care techniques are developed and applied. Learners will evaluate responsible stewardship practices and develop production management strategies that emphasize the industries goals through good reproductive decision-making.</p>	CTA	—
010940	<p><b>Zoo and Aquarium</b> In this course, learners will identify and apply responsible animal science principals and routine husbandry practices to captive animal populations. Learners will apply knowledge of animal behavior, welfare, and husbandry principals to enhance exhibit design, animal enrichment and training plans, and educational and visitor engagement programs. Emphasis will be given to data collection and research techniques. Principles of responsible population control, disease risk and management, and problem-solving/action planning techniques will be examined.</p>	CTA	—
011001	<p><del><b>Food Science and Technology</b> Applies principles of biology, chemistry and physics to the research and development, production, processing, and distribution of food products meeting quality assurance standards in a system that is safe and secure.</del></p>	<del>CTA</del>	—
011010	<p><b>Science and Technology of Food</b> This first course in the pathway examines the research, marketing, processing and packaging techniques applied to the development of food products. Learners will examine principles of food preservation techniques and determine correlations to food sensory, shelf life and food stability. Learners will examine and develop food safety, sanitation, and quality assurance protocol. Government regulations and food legislation will be examined and the implications to food science and technology will be identified.</p>	CTA	—
011015	<p><b>Food Marketing and Research</b> Learners will focus on the stages of research process from research planning to gathering, analysis, and interpretation of data as it relates to food marketing management. Learners will apply knowledge of food additives, nutrition, mixes and solutions to enhance existing food products and to create new processed foods. Learners will identify and describe the impact that technological advances have on food production and availability. Cultural trends and preferences affecting product development will be examined.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
011020	<p><b>Meat Science and Technology</b> Learners will apply food chemistry and microbiology to processing, preservation, packaging, storage and marketing of meat products. Learners will design and implement a quality assurance program that meets legal compliance. Learners will evaluate carcass composition, assign quality grades, and examine valued-added products. Learners will demonstrate knowledge of safety regulations and operate and maintain equipment and facilities. Learners will practice customer service and sales techniques while understanding the scope and importance of business regulations.</p>	CTA	—
011025	<p><b>Microbial Food Science and Safety</b> Learners are introduced to the chemistry, bioengineering and microbiology involved in producing food products. Processes contributing to the appearance, taste, texture, and smell of food products will be explored. Learners will examine functional foods, value-added foods, organic foods and food additives. Contamination points from biological hazards and food allergens will be identified and preventive measures developed. Food laws, regulations and regulatory and commercial grading standards will be examined.</p>	CTA	—
011030	<p><b>Applications of Food Science and Technology</b> Learners will use principles and practices of food processing and packaging to develop solutions for problems in food production, handling and storage. Learners will examine heat preservation, cold processing, food irradiation, fermentation, milling, and hydrogenation processing techniques. Learners will examine the process of food product development and techniques used to measure food sensory aspects, shelf life and food stability. Learners will examine government regulation impact on labeling, new packaging technologies, harvesting, transportation, and the environment.</p>	CTA	—
012000	<p><del><b>Biotechnology for Food, Plant, and Animal Sciences</b> Applies principles of chemistry, microbiology and genetics to plant and animal research. The focus of this research is to enhance the production and physical attributes of plants and animals, as well as to generate animal and plant products used today in transportation, manufacturing, medicine, food production and environmental protection.</del></p>	CTA	—
012010	<p><b>Animal and Plant Biotechnology</b> Learners will apply principles of chemistry, microbiology and genetics to plant and animal research and product development. They will describe the importance of biotechnology in society and analyze the issues that have affected agricultural biotechnology. Students will apply genetic principals to determine genotypes and phenotypes. Students will describe the parts and functions of animal and plant cells and their importance in biochemistry.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
012015	<b><u>Laboratory Techniques and Safety</u></b> <u>Learners will demonstrate proper techniques and procedures that apply in a laboratory environment. They will examine the theory of application and will operate various analytical instruments. Students will apply current Good Laboratory Practice and Good Manufacturing Practices. Learners will demonstrate proper safety procedures used in the laboratory and abide by the compliance standards of regulatory agencies.</u>	CTA	=
012020	<b><u>Applications of Genetics</u></b> <u>Learners will explore the mechanisms of heredity and genetics through food, plant, and animal science. Students will examine DNA and chromosome structure, transcription and gene regulation; replication and cell division; patterns of inheritance; and genetic recombination mutations and their repair. Learners will apply molecular technologies to food, plant and animal research.</u>	CTA	=
012025	<b><u>Bioinformatics</u></b> <u>Learners will be introduced to the basics of bioinformatics where they will employ mathematical, statistical and computational methods to process large amounts of biologically-derived information. The main techniques that will be examined related to sequence analysis are gene identification, genome sequencing, sequence comparison, and database searching. Students will apply biological principles to understand the application of bioinformatics algorithms and software.</u>	CTA	=

Table 20. Career Field 02: Arts &amp; Communications Codes (04xxxx, 34xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
340005	<b>Visual Design and Imaging</b> Programs that focus on the creation, design, and execution of layouts and illustrations on various mediums including electronic media and the theory and processes of image transfer, including offset, flexography, lithography, photoengraving and other techniques. Communications, business principles and leadership skill development related to the industry are essential to the program. Specialization areas include commercial art and graphic occupations.	CTA, TEC	—
340010	<b>Principles of Arts and Communications</b> A course focused on the fundamental principles and practices of image capture, audio and writing in Media Arts; creating and outputting illustrations for Visual Design and Imaging; and creating, interpreting and performing works for the Performing Arts all of which convey a message and stimulate thought. Business principles and leadership skill development related to the industry are essential to the program.	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
340015	<b>Media Arts</b> Programs that focus on the use of still and motion photography in journalism. Communications, business principles and leadership skill development related to the industry are essential to the program. Specialization areas include journalism, photography and digital media.	CTA	—
340020	<b>Performing Arts</b> Programs that focus on the creation, interpretation and performance of works that use auditory, kinesthetic, and visual phenomena to express ideas and emotions in various forms. Communications, business principles and leadership skill development related to the industry are essential to the program. Specialization areas include music, dance and theater.	CTA	—

**Table 21. Career Field 03: Business & Administrative Services Codes (14xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
140050	<b>Introduction to Business and Administrative Services</b> This career field course is based upon the Business and Administrative Services Career Field Technical Content Standards and includes content that crosses all pathways of the career field. It is the basics course that leads to specialization in one of the career pathways of Administrative and Professional Support, Legal Management and Support, Medical Management and Support, and Management.	CTA, BUS, TEC	—
140075	<b>Interdisciplinary Career Field Business Concepts</b> This course addresses business content specific to the various career fields and is addressed in a contextual manner. Content is based on business competencies, including business process and computer applications, within the career field technical content standards for the career field that serves as the anchor class. The course must be correlated to an anchor course in any career field except business and administrative services, finance, marketing, or information technology.	CTA, BUS	—
140300	<b>Administrative and Professional Support</b> Based on a sequence of courses, students will be prepared for careers which support business operations through a variety of administrative duties including information and communication management, data processing and collection, and project tracking. Due to changes in technology, the skills required in administrative support careers have increased and correspond with that of a mid-level manager. Sample occupations within this pathway include: administrative assistant, customer service representative, executive assistant, office manager, and project coordinator.	CTA, BUS, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
140310	<p><b>Legal Management and Support</b> Based on a sequence of courses, students will be prepared for careers which facilitate legal operations through a variety of management and administrative duties. Employees in this field are found in law firms, courts, court reporting firms, legal departments of corporate businesses, and government regulatory agencies. Sample occupations within this pathway include: legal office manager, legal assistant, legal secretary, paralegal, court administrator, compliance analyst, regulatory analyst.</p>	CTA, BUS, TEC	—
140320	<p><b>Medical Management and Support</b> Based on a sequence of courses, students will be prepared for careers which facilitate medical business operations, through a variety of management and administrative duties. Employees in this field are found in medical offices, hospitals, and insurance companies. Sample occupations within this pathway include: admissions specialists, benefits coordinators, medical billing specialists, medical records and health information technician, medical office manager, claims processor, and medical coding specialist.</p>	CTA, BUS, TEC	—
140800	<p><b>Business Management</b> Based on a sequence of courses, students will be able to plan, organize, direct, and evaluate all or part of a business organization (including their own) through the allocation and use of financial, human and material resources. Activities in which they are engaged include project management, business analysis, quality control, scheduling, procurement and warehousing, and activities related to staffing. Sample occupations within this pathway include: business analyst, chief operations officer, district manager, master scheduler, project manager, purchasing manager, small business manager/owner, supervisor, human resources generalist/manager, labor relations, manager, recruiter, training manager.</p>	CTA, BUS, TEC	—

**Table 22. Career Field 04: Construction Technologies Codes (17xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170005	<p><b>Construction Technologies</b> Combined with specialization competencies utilizing business and industry technical standards and a math, science, ELA, technology, and business process framework, develops technical literacy in construction systems leading to pathways in pre-construction and design, construction management, apprenticeship and specialization areas (e.g., carpentry, electrical, masonry, environmental control technologies, etc.) and post-secondary articulation.</p>	CTA, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170100	<b>Environmental Control Technologies</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of installation, repair and maintenance of residential, commercial, and industrial air-conditioning systems.	CTA, TEC	—
171001	<b>Carpentry</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of layout, construction and repair of residential and commercial structures.	CTA, TEC	—
171002	<b>Electrical Trades</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of layout, assembly, installation, testing, and maintenance of electrical fixtures and apparatus, and the wiring used in electrical systems.	CTA, TEC	—
171003	<b>Heavy Equipment (Construction)</b> Classroom and practical work experiences concerned with the operation, maintenance and repair of heavy-duty construction equipment and the gasoline or diesel engines powering the equipment.	CTA, TEC	—
171004	<b>Brick, Block and Cement Masonry</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of cutting, chipping and fixing in position of brick and concrete block.	CTA	—
171005	<b>Interior Design Applications</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of the interior construction industry; including painting, wallpapering, flooring, tiling, drywall, trim, lighting and more.	CTA	—
171007	<b>Plumbing and Pipefitting</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of layout, assembly, installation, alteration and repair of piping systems and related fixtures and fittings.	CTA, TEC	—
171011	<b>Building and Property Maintenance</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of the physical structure of an office building, factory, apartment building, house, or similar structure in good repair.	CTA, TEC	—
171017	<b>Building Technology</b> Utilizing industry standards and a math, science, ELA and a technology framework introduces concepts across multiple areas of construction. Areas include carpentry, electrical trades, masonry, and plumbing and related technical topics.	CTA, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
171100	<b>Custodial Services</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of layout, assembly, installation, testing, and maintenance of electrical fixtures and apparatus, and the wiring used in electrical systems.	CTA	—
171805	<b>Construction – Design-Build</b> Utilizes industry standards and a math, science, ELA and technology framework to introduce concepts of designing, planning, managing, building and maintaining the built environment.	CTA, TEC	—
171806	<b>Construction – Management</b> Classroom and laboratory experiences combining advanced academics and the skills and knowledge essential to the construction industry. Focus is on supervision, planning and management of the construction process. The program will follow the state TCP and culminate in an associate degree.	CTA, TEC	—
173601	<b>Wood Product Technologies</b> Utilizing business and industry, math, science and technology standards, introduces concepts of wood product materials and technologies; design and production of window frames, molding, trims and panels; and wood crafting skills including the design and manufacture of wood products such as furniture, moldings, trims, fixtures and cabinetry.	CTA, TEC	—

Table 23. Career Field 05: Education &amp; Training Codes (35xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
350001	<b>Introduction to Education and Training</b> Provides options for students to explore Education and Training career field to allow students to pursue the career pathways.	CTA	—
350011	<b>Teaching Professions</b> Major career courses to prepare students for entry level, technical and professional career option within the teaching professions.	CTA	—
350201	<b>Early Childhood Education</b> Preparation for employment in childcare services, child development, and early childhood education within the childcare and guidance industries.	CTA	—

**Table 24. Career Field 06: Engineering & Science Technologies Codes (17xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
171821	<p><b>Computational Science and Engineering</b>            Combined with Engineering Science (subject code 171815), utilizes business and industry technical standards and math, science and technology framework to introduce concepts of the utilization of mathematical formulas to serve as forecasting models across multiple industries in a problem-based format.</p>	CTA, TEC	—
171822	<p><b>Aerospace Engineering</b>            Combined with Engineering Science (171815), utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to aerospace in the Project Lead The Way model and leads to post-secondary articulation.</p>	CTA	—
171402	<p><b>Power Transmission</b>            Utilizing business and industry technical standards and a math, science, ELA, technology and business process framework, develops technical literacy in erecting and maintaining power lines and circuits for transmission and distribution of electrical power, and assembling and erecting related equipment and structures.</p>	CTA	—
171504	<p><b>Telecommunications</b>            Utilizing business and industry technical standards and a math, science, ELA, technology and business process framework, develops technical literacy in the assembly, installation, operation, maintenance and repair of telecommunications equipment.</p>	CTA, TEC	—
171815	<p><b>Engineering Science</b>            Utilizing business and industry standards and a pre-calculus/trigonometry, science and technology framework introduces pre-engineering skills, problem-solving and critical thinking in the areas of introduction to engineering, principles of engineering, digital electronics, and engineering design and development in the Project Lead the Way model and leads to post-secondary articulation.</p>	CTA, TEC	—
171816	<p><b>Computer Integrated Manufacturing</b>            Combined with Engineering Science (171815), utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to robotic manufacturing in the Project Lead the Way model and leads to post-secondary articulation.</p>	CTA, TEC	—
171817	<p><b>Civil Engineering and Architecture</b>            Combined with Engineering Science (171815), utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to civil engineering and architecture in the Project Lead the Way model and leads to post-secondary articulation.</p>	CTA, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
171818	<p><b>Fuel Cell Technologies</b>            Combined with Engineering Technologies – Emerging (subject code 171815), utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to fuel cell types, materials, function, and design in the Project Lead the Way model and leads to post-secondary articulation.</p>	CTA, TEC	—
171819	<p><b>Materials Joining Technologies</b>            Combined with Engineering Technologies – Emerging (subject code 171815), utilizes industry technical standards and a math, science, and technology framework to introduce concepts of pre-engineering related to robotics, material science and nanofabrication in welding in the Project Lead the Way model and leads to post-secondary articulation.</p>	CTA, TEC	—
175000	<p><b>Biomedical Science</b>            Utilizing business and industry, mathematics, science and technology standards, introduces concepts of biomedical science including principles of the biomedical sciences, human body systems, medical interventions, and science research. This is a Project Lead the Way program only.</p>	CTA	—
170007	<p><b>Engineering Systems</b>            Combined with specialization competencies utilizing business and industry technical standards and a math, science, ELA, technology and business process framework, develops technical literacy in engineering and science leading to pathways in the engineering and science career field.</p>	CTA, TEC	—
171600	<p><b>Energy Science</b>            Utilizing industry standards and a math, science, ELA and a technology framework introduces concepts of solar, wind, fossil fuel, nuclear, geothermal, biomass, and fuel cell energy and leads to post-secondary.</p>	CTA, TEC	—
171810	<p><b>Engineering Technology</b>            Combined with the first course in the pathway and utilizing business and industry technical standards and a math, science, ELA, technology framework, introduces concepts of engineering related to mechanical, electrical and industrial engineering and leads to post-secondary education.</p>	CTA, TEC	—
171820	<p><b>Biotechnical Engineering</b>            Combined with Engineering Science (subject code 171815), utilizes business and industry technical standards and a math, science, and technology framework to introduce concepts of biotechnical engineering, genomics, bioprocesses, agricultural, environmental, and biomedical science in a problem-based format.</p>	CTA, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
171825	<b>Engineering Design and Development</b> Combined with Engineering Science (subject code 171815) and an elective Project Lead the Way Course introduces concepts of formal research and design in the construction of a solution to an engineering or societal problem.	CTA, TEC	—

**Table 25. Career Field 07: Finance Codes (14xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
140025	<b>Finance Career Field Course</b> This career field specialization course is based upon the Finance CFTCS and includes content that crosses all pathways of the career field. It is the basics course that leads to specialization in one of the career pathways of Accounting or Financial Services.	CTA, BUS	—
140100	<b>Accounting (Career Technical)</b> Prepares students for careers that record, classify, summarize, analyze and communicate a business's financial information and business transactions. Accounting includes such activities as bookkeeping, systems design, and analysis and interpretation of accounting information. Sample occupations include: certified public accounting (CPA), auditor, financial accountant, accounting clerk, treasurer, bookkeeper, forensic accountant, and international accountant.	CTA, BUS	—
140110	<b>Financial Services</b> Prepares students for careers in banking, securities and investments, and insurance. Activities include accepting deposits, lending funds and extending credit, banking services, investments, mortgages and loans, investments, real estate, and insurance. Sample occupations include: loan officer, branch manager, investment banker, financial planner, bank teller, personal financial advisor, real estate broker, and credit analyst.	CTA, BUS	—

**Table 26. Career Field 08: Government and Public Administration Codes (360230)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
360230	<b>Government and Public Administration</b> Students will focus on those careers that are inherent to government, as well as other career fields that are utilized in a government and public administration context.	CTA	—

**Table 27. Career Field 09: Health Science Codes (07xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
070005	<p><b>Health Science</b> Utilizing business and industry technical standards and a math, science, ELA, technology, and business process framework combined with specialized competencies develops technical literacy in the Health Science Career Field leading to pathways in Clinical Healthcare Services, Health Information Management, Health Support Services and Bioscience Research &amp; Development and specialization areas (e.g. physical therapy, dental assisting, medical assisting, nursing, radiology, surgical technology, etc.) with post-secondary articulation.</p>	CTA	—
070101	<p><b>Dental Assistant</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and laboratory experience to assist the dentist in the dental operator, clerical functions, and selected dental laboratory work.</p>	CTA	—
070103	<p><b>Dental Laboratory Technology</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces subject matter and experiences in producing restorative appliances authorized by a dentist.</p>	CTA	—
070203	<p><b>Medical Laboratory Technology</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences to perform diagnostic analytic laboratory tests including phlebotomy techniques.</p>	CTA	—
070204	<p><b>Phlebotomy</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces subject matter and experiences to lead to a recognized, portable credential as a certified phlebotomist.</p>	CTA	—
070302	<p><b>Practical Nursing</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes subject matter and supervised clinical experiences to provide direct nursing care under the supervision of a registered nurse, licensed physician, dentist, or chiropractor.</p>	CTA	—
070303	<p><b>Nurse Assisting</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and clinical experiences in the care of individuals under the supervision of a nurse.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
070305	<b>Surgical Technology</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences as a general assistant on the surgical team in the operating suite.	CTA	—
070307	<b>Home Health</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences to assist elderly, convalescent, or handicapped in their homes for daily living needs.	CTA	—
070410	<b>Exercise Science/Sports &amp; Recreation Healthcare</b> Utilizing business and industry technical standards and math, science, ELA, and technology framework, in the study of organ systems, study of movement & associated functional response and adaptations, understand scientific basis underlying exercise-induced physiological responses in athletic training, biomechanics, exercise physiology and nutrition for the prevention, diagnosis and treatment of injuries.	CTA	—
070603	<b>Optometric Occupations</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experience to prepare, assemble, and/or fit corrective lenses prescribed by a physician, optometrist or optician.	CTA	—
070904	<b>Medical Assistant</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experience to perform functions and procedures concerned with the diagnosis and treatment of patients under the supervision of a physician.	CTA	—
070906	<b>Community Health Aide</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experience to serve as a liaison between professional health workers and the recipients of health services.	CTA	—
070912	<b>Pharmacy Technician</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experiences to work in a pharmacy under the supervision of a pharmacist.	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
070913	<p><b>Health Unit Coordinator</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences to manage components of non-patient care activities in health care facilities.</p>	CTA	—
071100	<p><b>Clinical Health Care Services</b> Combined with specialized competencies and utilizing business and industry technical standards with a math, science, ELA, social studies and technology framework involved in changing the health status of a patient/client over time through performance of tests or evaluations to identify the presence or absence of illness or injury that creates a picture of the health status of an individual at a single point of time.</p>	CTA	—
070994	<p><b>Patient Care Technician</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences to perform clinical skills such as blood collection, EKGs, catheterization, recording vital signs and patient treatments, and other tasks related to patient care in a variety of healthcare environments under the direct supervision of a registered nurse or other medical professionals.</p>	CTA	—
074820	<p><b>Diagnostic Pathway</b> A clustered program utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experiences in health careers that focus on diagnostic procedures to determine status of body functions/systems, cause and nature of diseases and disorders.</p>	CTA, TEC	—
074830	<p><b>Therapeutic Pathway</b> A clustered program utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes concepts, subject matter and experiences in health careers that focus on care and treatment of individuals for the promotion and maintenance of wellness; prevention and treatment of physical, mental and emotional disorders.</p>	CTA	—
074840	<p><b>Health Support Pathway</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences for health support services careers, including operation, resource management, esthetics and aseptic procedures of the physical plant to ensure a healthy and well equipped environment in healthcare.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
074850	<b>Biotechnology</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts and subject matter in classroom and laboratory experiences in the bioprocesses of organisms, cells or their components to create products or solve problems. Program concentrates on biomedical, environmental, pharmaceutical, bioinformatics and bioethics.	CTA, TEC	—
074890	<b>Health Information Management Services</b> A clustered program utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts, subject matter and experiences for health careers that focus on compilation, maintenance and retrieval of records, reports and statistical data on health services.	CTA, TEC	—

Table 28. Career Field 10: Hospitality &amp; Tourism Codes (33xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
330005	<b>Culinary and Food Service Operations</b> Educational programs in Culinary and Food Service Operations prepare learners for careers in the art and science of food preparation and presentation.	CTA	—
330010	<b>Lodging</b> Preparation for careers in the management, marketing and operations of lodging facilities.	CTA, BUS	—
330015	<b>Introduction to Hospitality and Tourism</b> Preparation for careers requiring broad, cross-functional knowledge of marketing, management and operations of restaurants, and other food services, lodging, destination marketing organizations, attractions, meetings and events, transportation and travel-related services.	CTA, BUS	—
330020	<b>Travel and Tourism</b> Educational programs in travel and tourism prepare learners for careers in management, marketing and operation of destination marketing organizations, attractions, meetings and events, transportation, and travel related services.	CTA, BUS	—

Table 29. Career Field 11: Human Services Codes (17xxxx, 99xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
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Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
172600	<p><b>Human Services</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts in Human Services leading to pathways in Family &amp; Community Services or Personal Care Services.</p>	CTA	—
172605	<p><b>Family and Community Services</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, introduces concepts in the Family and Community Services Pathway such as unemployment, substance abuse, aging and physical, emotional and cognitive disabilities, domestic violence, physical/emotional abuse, poverty and community resources.</p>	CTA	—
172602	<p><b>Cosmetology</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction includes variety of beauty treatments including care and beautification of the hair, complexion, hands and feet.</p>	CTA	—
172601	<p><b>Barbering</b> Utilizing business and industry technical standards, math, science, ELA, social studies and technology with a business process framework, instruction and clinical experiences includes haircutting and styling, shaving and massaging with emphasis on hygiene, skin and scalp diseases, and sterilization of instruments and utensils.</p>	CTA	—
990371	<p><b>Vocational Job Training Coordinating</b> A specialized community based job training program for students with disabilities who are unable to successfully participate in regular career-technical education programs even when adjusted programs and supplemental aides or specialized supportive personnel are available. The program utilizes a job training coordinator to match specific jobs in the community to the individual student's skills. Job coach services must be made available to assist the students to gain the skills necessary for the job. Students must be at least sixteen years old and this program must be identified on the student's individualized educational program (IEP).</p>	CTA	—

**Table 30. Career Field 12: Information Technology Codes (14xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
140200	<b>Information Technology I (Career Technical)</b> This course is designed to serve as the first course in a Career-Technical program in information technology. Based on information technology basics (9th and 10th grade competencies) and other fundamental skills drawn from it WORKS.OHIO, the Ohio Career Field Technical Content Standards for Information Technology, this course must lead to a specialized program in Information Support and Services, Network Systems, Programming and Software Development or Interactive Media.	CTA, BUS, TEC	—
140210	<b>Information Support and Services (Career Technical)</b> An instructional program that provides training for careers dealing in information technology deployment and information systems management and support.	CTA, BUS, TEC	—
140220	<b>Network Systems (Career Technical)</b> An instructional program that provides training for careers in communication network systems planning, administration, and management.	CTA, BUS, TEC	—
140230	<b>Programming and Software Development (Career Technical)</b> An instructional program that provides training for careers dealing with hardware and software programming to design, develop, and implement computer systems and software.	CTA, BUS, TEC	—
140240	<b>Interactive Media (Career Technical)</b> An instructional program that provides training in the area of interactive multi-media development that includes creating, designing, and producing interactive multimedia products and services and digitally-generated or computer-enhanced media.	CTA, BUS, TEC	—

**Table 31. Career Field 13: Law & Public Safety Codes (17xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
172801	<b>Fire Fighter Training</b> Utilizing business and industry, math, science and technology standards, provides concept of paid, full-time firefighter. The training program must be chartered through the Ohio Department of Public Safety or have an agreement with a chartered fire fighter training program.	CTA	—
172802	<b>Criminal Justice</b> Utilizing business and industry, math, science and technology standards, introduces concept of training provided by officially designated law enforcement agencies. The program must be certified by the Ohio Peace Officers Training Commission.	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
172808	<b>Private Security</b> A one-year program utilizing business and industry, math, science and technology standards, introduces concept of physical and personal security, internal loss and facility access.	CTA	—
172810	<b>Career Paths for the Law Profession</b> Utilizing business and industry, math, science and technology standards, introduces knowledge and skills to prepare students for entry level, technical and professional career options within the law and public administration professions.	CTA	—
172811	<b>Emergency Medical Technician – Secondary</b> Utilizing business and industry, math, science and technology standards, instructs to the level of EMT-Basic. This course must include the Ohio Department of Public Safety approved EMT-Basic curriculum and be provided through an accredited ODPS provider. This course is a minimum of 450 hours with the ODPS curriculum limited to the senior level.	CTA	—
172812	<b>Public Safety – Core</b> Utilizing business and industry, math, science and technology standards, introduces concept of knowledge and skills applicable to public safety careers, e.g., Firefighter, EMT-Basic, and Criminal Justice. This course is to be taught only in conjunction with an approved senior level specialized public safety program.	CTA	—
172815	<b>Criminal Science Technology</b> Utilizing business and industry standards as framework for application of clinical and criminal laboratory science, evidentiary testing & analysis, study of society's formal control system, investigative techniques, criminal law, criminal process, administration of Justice System, computer applications, record-keeping, and reconstruction techniques.	CTA	—

Table 32. Career Field 14: Manufacturing Technologies Codes (17xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170370	<b>Automation &amp; Robotics</b> Utilizing business and Industry, math, English, science and technology standards, introduces concepts of Automation and Robotics technologies: Computer Numerical Control (CNC), Data Acquisition and Analysis, Electrical/Electronic controls, Fluid Power, Robotics and Programmable Logic Controllers (PLC).	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170006	<b>Manufacturing Technologies</b> Combined with specialization competencies utilizing business and industry technical standards and a math, science, ELA, technology, and business process framework, develops technical literacy in manufacturing systems, leading to pathways in manufacturing operations, product design and material production and post-secondary articulation.	CTA, TEC	—
171012	<b>Integrated Systems Technology</b> Utilizing business and industry, math, science and technology standards, introduces concept of the maintenance of machinery and mechanical equipment of an industrial plant or factory.	CTA	—
171300	<b>Manufacturing Design and Development</b> Utilizing business and industry, math, English, science and technology standards, introduces concepts of Design and Development Technologies: Design Process, Teamwork and Project Management, Marketing, Technical Applications, Modeling, Materials and Quality Assurance.	CTA, TEC	
171503	<b>Electronics</b> Utilizing business and industry, math, science, and technology standards, introduces concepts of electronic theory and practice.	CTA, TEC	—
172302	<b>Precision Machining</b> Utilizing business and industry, math, science, and technology standards, introduces concepts related to set-up and operation; and the control of various metal working equipment.	CTA, TEC	—
172306	<b>Welding and Cutting</b> Utilizing business and industry, math, science, and technology standards, introduces concepts of metal welding, brazing and flame cutting.	CTA, TEC	—

Table 33. Career Field 15: Marketing Codes (04xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
040805	<b>Introduction to Marketing</b> Broad preparation for careers that help identify and understand target audience needs and wants, generate demand, or get a good, service or idea to that audience. This can be the first course for all marketing, business administration or hospitality and tourism pathways.	CTA, BUS	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
040810	<b>Marketing Management</b> Educational programs in marketing management prepare learners for careers requiring broad, cross-functional knowledge of marketing and management. These functions include supply-chain management, marketing-information management, pricing, product/service management, marketing communications, and selling.	CTA, BUS	—
040815	<b>Marketing Communications</b> Preparation for careers that inform, remind, and/or persuade a target audience including advertising, public relations, and multimedia marketing communications.	CTA, BUS	—
041900	<b>Supply Chain Management</b> Preparation for the strategic operation and management of marketing systems with emphasis on logistics components, including purchasing and warehousing.	CTA, BUS	—
042010	<b>Leadership</b> Introductory, project-based course that develops student understanding and skills in such areas as communications, emotional intelligence, self-management, operations and professional development. This is a recommended first course for the High School of Business pathway.	CTA, BUS	—
042015	<b>Wealth Management</b> Project-based course that develops student understanding and skills in such areas as economic decision-making, time value of money, financial management and types of investment. This is a recommended second course for the High School of Business pathway.	CTA, BUS	—
042020	<b>Principles of Business</b> Project-based course that develops student understanding and skills in such areas as business law, economics, financial analysis, human resources management, marketing, operations, information management, and strategic management. This is the recommended third course for the High School of Business pathway.	CTA, BUS	—
042025	<b>Principles of Economics</b> Introductory, project-based course that develops student understanding and skills in such areas as consumer spending, government politics, economic conditions, legal issues, and global competition. This is the recommended fourth course for the High School of Business pathway.	CTA, BUS	—
042030	<b>Principles of Marketing</b> Introductory, project-based course that develops student understanding and skills in the functional areas of marketing including channel management, marketing information-management, marketing planning, pricing, product/service management, promotion and selling. This is a recommended fifth course for the High School of Business pathway.	CTA, BUS	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
042035	<b>Principles of Finance</b> Project-based course that develops student understanding and skills in such areas as accounting and finance including financial statements, financial ratios, operating and overhead costs, internal controls, budgets and corporate financial data analysis. This is the recommended sixth course for the High School of Business pathway.	CTA, BUS	—
042040	<b>Principles of Management</b> Project-based course that develops student understanding and skills in all areas of management including project management, human resources management, knowledge management, quality management, risk management and legal and ethical issues in management. This is the recommended seventh course for the High School of Business pathway.	CTA, BUS	—
042045	<b>Business Strategies</b> Capstone course that requires extensive student decision-making to finalize marketing, financial and management plans and incorporate them into a business plan. This is the recommended final course for the High School of Business pathway.	CTA, BUS	—
044110	<b>Entrepreneurship</b> Preparation for starting new ventures that create, power and change business activity – meaning new markets, new products, new production methods and new businesses.	CTA, BUS	—
044100	<b>Introduction to Entrepreneurship</b> Preparation for the early business stages of starting new ventures that create, power and change business activity – meaning new markets, new products, new production methods and new businesses.	CTA, BUS	—

Table 34. Career Field 16: Transportation Systems Codes (17xxxx)

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170350	<b>Transportation Systems</b> Combined with specialization competencies utilizing business and industry technical standards and math, science, ELA, technology, and business process framework, develops technical literacy in transportation systems, leading to pathways in ground and air transportation and post-secondary articulation.	CTA	—
170301	<b>Auto Collision Repair</b> Specialized learning experiences concerned with all phases of the repair of damaged vehicle bodies and frames. Areas of Instruction may include: Paint and Refinishing, Mechanical/Electrical Repair, Structural and Non-Structural Repair.	CTA, TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
170302	<b>Auto Technology</b> Learning experiences involving the service and repair of the mechanical components of the vehicle. The focus of the program will be in the ASE areas of Electrical/Electronic Systems, and Suspension and Steering, Brakes and Engine Performance.	CTA, TEC	—
170303	<b>Auto Specialization</b> Specialized learning experiences that involve more intensive training in a single automotive system. Examples may include Automotive Detailing, Custom Car Prep, High Performance, Alternative Fuel, Engine Repair, Transmission Service.	CTA, TEC	—
170400	<b>Aviation Occupations</b> Classroom and practical experiences that include instruction relating to aircraft maintenance, operation, and ground support. Instructor and program must be certified by the Federal Aviation Administration (FAA).	CTA, TEC	—
170401	<b>Aircraft Maintenance</b> This is the official FAA – Aviation Maintenance Air Frame and Powerplant Course. 1800 hour program. Instructor and program must be certified by the Federal Aviation Administration (FAA) in airframe and power plant.	CTA, TEC	—
170403	<b>Ground Operations</b> This program is geared toward the Airport Environment and activities concerning the ground support of commercial aircraft, terminal and hanger activities.	CTA, TEC	—
170801	<b>Maritime Occupations</b> Utilizing rigorous academics and Maritime industry standards introduce concepts of deck, engineering and other careers in the maritime industry.	CTA	—
171200	<b>Medium/Heavy Truck Technician</b> This program focuses on the service and repair of trucks. Instruction includes the diagnosis, maintenance and repair of diesel engines operational systems. ASE areas of concentration are: Diesel Engines, Suspension and Steering, Brakes, Electrical/Electronic Systems and Preventive Maintenance Inspection.	CTA, TEC	—
173100	<b>Power Equipment Technology</b> Training in this program focuses on 2 and 4 cycle gasoline powered engines and their use in outdoor power and recreational equipment. This includes the basic service and preventative maintenance of equipment.	CTA, TEC	—

### ***Career Based Intervention Section***

**Table 35. Career Based Intervention (CBI) Codes (25xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
250510	<b>CBI Language Arts</b> Content based on academic content standards; for CBI students facing academic barriers. (These courses are always reported in EMIS with “Curriculum Element “V3”.)	ENG	Language Arts
250519	<b>CBI Reading</b> Content based on academic content standards; for CBI students facing academic barriers. (These courses are always reported in EMIS with “Curriculum Element “V3”.)	ENG	Reading
251110	<b>CBI Mathematics</b> Content based on academic content standards; for CBI students facing academic barriers. (These courses are always reported in EMIS with “Curriculum Element “V3”.)	MTH	Mathematics
251310	<b>CBI Science</b> Content based on academic content standards; for CBI students facing academic barriers. (These courses are always reported in EMIS with “Curriculum Element “V3”.)	SCI	Science
251510	<b>CBI Social Studies</b> Content based on academic content standards; for CBI students facing academic barriers. (These courses are always reported in EMIS with “Curriculum Element “V3”.)	SOC	—
252525	<b>Career Based Intervention</b> CBI programs are designed for students ages 12 through 21 in grades 7 through 12 who are identified as disadvantaged (either academically or economically or both) and who have barriers to achieving academic and career success. The goals of the program are to help students improve academic competence, graduate from high school, develop employability skills, implement a career plan and participate in a career pathway in preparation for postsecondary education and/or careers.	CTA	—

***Career Development Section*****Table 36. Career Development Codes (99xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
990361	<b>Entrepreneurship Skills (Career Technical)</b> Exploring owning your own business.	CTA	—
990362	<b>Employability Skills (Career Technical)</b> Work related skills for entering, competing and advancing in a changing work world.	CTA	—

***Family and Consumer Sciences (Career Technical) Section***

**Table 37. Family and Consumer Sciences Codes (09xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
090192	<p><b>GRADS – Minimum Intervention/Follow-up</b>            Graduation, Reality and Dual-role Skills (GRADS) is an instructional and intervention program for pregnant and parenting students, male and female. An in-school instructional program for pregnant and parenting students, grades 7-12. The mission is to promote personal growth, educational competence, and economic self-sufficiency as socially responsible members of society. The objectives are for the student to remain in school, have healthy pregnancies and healthy babies, learn practical parenting and child-development skills, gain orientation to work, set goals toward balancing work and family, and delay subsequent pregnancies.</p>	CTA	—
090193	<p><b>GRADS – Alternative Structure</b>            Graduation, Reality and Dual-role Skills (GRADS) is an instructional and intervention program for pregnant and parenting students, male and female. An in-school instructional program for pregnant and parenting students, grades 7-12. The mission is to promote personal growth, educational competence, and economic self-sufficiency as socially responsible members of society. The objectives are for the student to remain in school, have healthy pregnancies and healthy babies, learn practical parenting and child-development skills, gain orientation to work, set goals toward balancing work and family, and delay subsequent pregnancies.</p>	CTA	—
090194	<p><b>GRADS – Class Structure</b>            Graduation, Reality and Dual-role Skills (GRADS) is an instructional and intervention program for pregnant and parenting students, male and female. An in-school instructional program for pregnant and parenting students, grades 7-12. The mission is to promote personal growth, educational competence, and economic self-sufficiency as socially responsible members of society. The objectives are for the student to remain in school, have healthy pregnancies and healthy babies, learn practical parenting and child-development skills, gain orientation to work, set goals toward balancing work and family, and delay subsequent pregnancies.</p>	CTA	—
090700	<p><b>Consumer and Financial Literacy</b>            Students will learn how to manage money, set goals, understand needs and wants, develop spending plans that fit different careers, and make financial decisions based on the impact of advertising and practice good consumer responsibilities.</p>	—	—
091025	<p><b>Child Development</b>            Provide students with knowledge of how parents and child care providers meet the needs of infants and young children to provide for healthy growth and development. Prominent theories of child psychology will be studied.</p>	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
091050	<b>Financial Management I</b> Course provides 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.	CTA	—
091051	<b>Financial Management II</b> Course helps students evaluate resources, financial institutions and services that meet individual, family and business goals, protect financial health including credit and debit, prevent loss of assets, and advocate public policy issues that impact financial well-being.	CTA	—
091400	<b>Career Search I</b> Update IACP plans, practice job skills, and interpret career and workplace issues. Demonstrate how academic achievement influences personal and career growth, conflict resolution techniques and apply social skills that lead to effective school, career and family relationships that lead to a healthy, caring and responsible citizen.	CTA	—
091401	<b>Career Search II (Includes Mentorship)</b> Areas of study would include assessing career plans, managing job searches, and examining career and workplace issues, develop essential interpersonal skills, communication skills and workplace related skills. The course has a mentorship experience attached.	CTA	—
091410	<b>Transitions and Careers</b> Students develop personal assets of a healthy, responsible citizen and family member who are responsible for their academic, career and personal growth.	—	—
090050	<b>Healthy Food – Middle School</b> Provide students with the knowledge to evaluate good food choices and develop a plan for maintaining healthy weight. Demonstrate proper food handling, food preparation and apply safe kitchen practices.	—	—
091077	<b>Healthy and Safe Food</b> Develop practical problem solving that influences cultural and social factors that affect the body weight and healthy lifestyles. Demonstrate safe food-handling practices related to food-borne pathogens and kitchen environments.	CTA	—
091200	<b>Healthy Living</b> Develop practical problem solving that influences cultural and social factors that affects the body weight and healthy lifestyles. Demonstrate safe food-handling practices related to food-borne pathogens and kitchen environments. Use time management strategies, decision-making skills, peer pressure and multi-cultural awareness that relate to educational, work and family goals that sustain productive, meaningful lifestyles.	CTA	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
091300	<p><b>Managing Transitions</b>  Assess values and resources that support lifestyle goals, effective time management plans, stress management, multicultural awareness that sustains a productive, meaningful lifestyle. Choose resources that meet individual, family and business financial goals, credit and debt issues, techniques to prevent financial loss of assets conflict resolution and public policy that impact financial well-being.</p>	CTA	—

## INTERNATIONAL BACCALAUREATE COURSES SECTION

**Table 38. International Baccalaureate Courses for Diploma Program (32xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
320050	<b>IB Mathematics</b> Based upon the most current International Baccalaureate Program curriculum.	MTH	Mathematics
320150	<b>IB Mathematical Studies</b> Based upon the most current International Baccalaureate Program curriculum.	MTH	Mathematics
320200	<b>IB First Language</b> Based upon the most current International Baccalaureate Program curriculum.	ENG	English
320250	<b>IB Second Language – Arabic</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320300	<b>IB Second Language – Chinese</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320350	<b>IB Second Language – Czech</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320400	<b>IB Second Language – French</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320450	<b>IB Second Language – German</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320500	<b>IB Second Language – Hebrew</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320550	<b>IB Second Language – Italian</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320600	<b>IB Second Language – Japanese</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320650	<b>IB Second Language – Polish</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320700	<b>IB Second Language – Russian</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320750	<b>IB Second Language – Swahili</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language

<b>Subject Code</b>	<b>Description</b>	<b>Suggested Subject Area for Credit</b>	<b>Core Subject Area (for HQT)</b>
320800	<b>IB Second Language – Spanish</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320850	<b>IB Classical Languages (Latin or Classical Greek)</b> Based upon the most current International Baccalaureate Program curriculum.	FLR	Foreign Language
320900	<b>IB Business and Management</b> Based upon the most current International Baccalaureate Program curriculum.	BUS	—
320950	<b>IB Economics</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	Economics
321000	<b>IB Geography</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	Geography
321050	<b>IB History</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	History
321100	<b>IB Islamic History</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	History
321150	<b>IB Information Technology in a Global Society (ITGS)</b> Based upon the most current International Baccalaureate Program curriculum.	TEC	—
321200	<b>IB Philosophy</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
321250	<b>IB Psychology</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	—
321300	<b>IB Social and Cultural Anthropology</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	—
321350	<b>IB Biology</b> Based upon the most current International Baccalaureate Program curriculum.	SCI	Science
321400	<b>IB Chemistry</b> Based upon the most current International Baccalaureate Program curriculum.	SCI	Science
321450	<b>IB Physics</b> Based upon the most current International Baccalaureate Program curriculum.	SCI	Science
321500	<b>IB Design Technology</b> Based upon the most current International Baccalaureate Program curriculum.	TEC	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
321550	<b>IB Environmental Systems</b> Based upon the most current International Baccalaureate Program curriculum.	SCI	Science
321600	<b>IB Computer Science</b> Based upon the most current International Baccalaureate Program curriculum.	TEC	—
321650	<b>IB Visual Arts</b> Based upon the most current International Baccalaureate Program curriculum.	FAR	Arts
321700	<b>IB Music</b> Based upon the most current International Baccalaureate Program curriculum.	FAR	Arts
321750	<b>IB Theatre Arts</b> Based upon the most current International Baccalaureate Program curriculum.	FAR	Arts
321775	<b>IB Theory of Knowledge</b> Based upon the most current International Baccalaureate Program curriculum.	SOC	—

**Table 39. International Baccalaureate Courses for Middle Years Program (32xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
321800	<b>IB Mathematics (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Mathematics
321850	<b>IB Mathematics (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Mathematics
321900	<b>IB Language Arts A (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	English
321950	<b>IB Language Arts A (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	English
322000	<b>IB Language Arts B (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	English
322050	<b>IB Language Arts B (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	English
322100	<b>IB Humanities (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
322150	<b>IB Humanities (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
322200	<b>IB Technology (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
322250	<b>IB Technology (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
322300	<b>IB Arts (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Arts
322350	<b>IB Arts (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Arts
322400	<b>IB Sciences (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Science
322450	<b>IB Sciences (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Science
322500	<b>IB Physical Education (Middle Years - Grades 7-8)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
322550	<b>IB Physical Education (Middle Years - Grades 4-6)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—

**Table 40. International Baccalaureate Courses for Primary Years Program (32xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
322600	<b>IB Mathematics (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Mathematics
322650	<b>IB Language (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	English
322700	<b>IB Social Studies (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—
322750	<b>IB Arts (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Arts

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
322800	<b>IB Science &amp; Technology (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	Science
322850	<b>IB Personal, Social &amp; Physical Education (Primary Years - Grades 1-3)</b> Based upon the most current International Baccalaureate Program curriculum.	N/A	—

## SELF-CONTAINED COURSES SECTION

**Table 41. General Education Codes (18xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
180108	<b>Preschool</b> Preschool program in a self-contained classroom, this includes course related to ECE, Federal Head Start, and other local programs.	NA	—
180280	<b>Title I Preschool</b> A preschool program funded with Title I funds.	N/A	—
180050	<b>Early Education (0-2)</b> Courses taught to students ages 0-2.	N/A	—

**Table 42. Exceptional Children (for Students with Disability Conditions) Codes (19xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
196095	<b>Early Education of the Handicapped</b> Special Education programs and related services for children below six years of age.	N/A	—
199000	<b>Transition to Post School Readiness</b> Specialized curriculum designed for students with disabilities 14 years of age and older that provides training for the development of skills that supports the students transition to post school environments, including employment, postsecondary education, independent living, or community participation.	N/A	—
Content of the following courses is based on IEP goals linked to standards, but instruction is based on substantial modification to the form and substance of the general education curriculum. Course content focuses largely on application of state standards through essential life skills that typical students generally acquire in a non-school setting. For example, content in these courses linked to language arts standards might be learning to say one's own name or expressing preferences using non-verbal responses; content in these courses linked to math standards might be learning the concept of "one."			
196350	<b>Adaptive Living Skills (K-3)</b> Basic skills for students with severe motor, sensory, or cognitive disabilities that present unique and significant challenges to participation in other courses. Grades K - 3	N/A	—
196360	<b>Adaptive Living Skills (4-6)</b> Basic skills for students with severe motor, sensory, or cognitive disabilities that present unique and significant challenges to participation in other courses. Grades 4 - 6	N/A	—
196370	<b>Adaptive Living Skills (7-8)</b> Basic skills for students with severe motor, sensory, or cognitive disabilities that present unique and significant challenges to participation in other courses. Grades 7 - 8	N/A	—

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
196380	<b>Adaptive Living Skills (9-12)</b> Basic skills for students with severe motor, sensory, or cognitive disabilities that present unique and significant challenges to participation in other courses. Grades 9 – 12.	N/A	—

## OTHER COURSES SECTION

**Table 43. Other Course Codes (30xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
<p>These courses may be included in district programs and/or graduation requirements. However, these courses are not aligned with the academic content standards and do not represent courses for which credit toward meeting legislated graduation requirements is awarded.</p>			
300010	<p><b>Career Exploration</b> Scheduled time for researching career options.</p>	ELE	—
300020	<p><b>Community Service (Volunteer Program)</b> Scheduled time for volunteer service projects during or outside the school day. Note: This course cannot earn credit per ORC §3313.60.5.</p>	ELE	—
300030	<p><b>Study Skills</b> Instruction in strategies to improve learning and develop study skills; e.g., tips to improve study habits and test performance, with limited coverage of new content or the academic content standards for a single or multiple academic areas.</p>	ELE	—
300040	<p><b>School Publications</b> Scheduled time for production work and related activities of school publications; e.g., advertising and finances, for newspaper and/or yearbook. Activities not aligned with the academic content standards and do not earn English Language Arts credit.</p>	ELE	—
300050	<p><b>Wellness</b> A course that addresses general wellness strategies. Credit earned is not applied towards meeting graduation requirements for health and physical education due to limited focus on content related to those areas.</p>	ELE	—

**Table 44. Humanities Codes (31xxxx)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
Humanities courses may be included in district programs and may be taught by a teacher holding a valid certificate or instruction may be provided by a team of teachers that collectively hold the appropriate certificates/licenses for the content areas included in the course.			
310010	<b>Humanities (7-8)</b> The study of cultural achievements through the integration of literature, the arts, religion, history, and philosophy. (for grades 7-8)	N/A	—
310020	<b>Humanities</b> The study of cultural achievements through the integration of literature, the arts, religion, history, and philosophy.	N/A	—

**Table 45. Driver Education Code (210100)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
210100	<b>Driver Education</b> Learning experiences provided by the school for the purposes of helping pupils to become good traffic citizens and to operate motor vehicles safely and efficiently.	ELE	—

**Table 46. ROTC Military Science Code (220000)**

Subject Code	Description	Suggested Subject Area for Credit	Core Subject Area (for HQT)
220000	<b>ROTC Military Science</b> Organized subject matter and learning activities which are concerned with the development in each student attributes of (1) good citizenship and patriotism, (2) self-reliance, leadership, responsiveness to constituted authority, (3) a knowledge of the basic military skills, and (4) an appreciation of the role of the U.S. military in national defense.  (This subject code will be deleted in FY13; subject code 220001 is the replacement.)	ELE	—
220001	<b>ROTC Military Science</b> Organized subject matter and learning activities which are concerned with the development in each student attributes of (1) good citizenship and patriotism, (2) self-reliance, leadership, responsiveness to constituted authority, (3) a knowledge of the basic military skills, and (4) an appreciation of the role of the U.S. military in national defense.	ELE	—