

Secondary Course Catalog

2017-2018



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INTRODUCTION

The Wellspring School in Ras Al Khaimah (TWS-RAK) educates the children to become dynamic people of truth and excellence who effectively influence society. Our vision for students is that over their lifetimes they will become global citizens of truth and excellence in every vocation, impacting the world and inspiring others to do the same.

TWS-RAK is a member of the International Schools Consortium (ISC) – an organization that, for 30 years, has offered academically-excellent programs to meet the intellectual, physical, and emotional needs of students in China and the United Arab Emirates. ISC serves more than 1,800 students, most of whom are the children of foreign nationals and expatriates working for companies in China and the United Arab Emirates. ISC is a division of the LDi family of companies, an organization committed to leadership development, training, and transformation around the world. Our schools offer an American curriculum and a college preparatory system of instruction.

Because ISC is a multi-school organization, students and teachers are able to participate in system-wide programs in which they can interact with others outside their immediate school context. The opportunity to be a part of this larger, inter-connected community is just one of the many ways in which the TWS-RAK experience is unique.

This course catalog is designed to provide an overview of the secondary courses offered at TWS-RAK. All students in the sixth, seventh, and eighth grades take courses in Mathematics, Science, Social Studies, English, Arabic, Art, Music, and Physical Education. The high school program begins in ninth grade (ages 14-15) and is administered according to a semester credit system. To graduate, a minimum of 24 high school credits are required based upon the ISC graduation credit system. High school courses are valued at 0.5 credits per semester; one-semester courses will receive 0.5 credits and yearlong courses will receive 1.0 credits.

Advanced Placement® Courses

TWS-RAK believes that proper preparation for college is vital. Because of this, the TWS-RAK Advanced Placement® (AP) program is planned for the development of grade 11 and 12 curricula.

Graduation Credit Requirements

Subject	Credits Required for Graduation †
English	4
Social Studies	3
Science	3
Mathematics	3
Foreign Language*	2
Physical Education & Health	2
Fine Arts	1
Electives**	6
Total	24

* Arabic Language is required for every semester while in the UAE based on the Ministry of Education guidelines.

**Additional electives will be examined based upon the goals for graduation and the universities sought by the student. The Ministry of Education in the UAE also requires Islamic Studies and Arabic Social Studies courses for some students which TWS-RAK includes within the elective credit category.

† Acceptance of transfer credits from other schools or institutions will be determined by the principal and school counselor (transfer credits will not count toward a student's TWS-RAK GPA)

Courses Offerings by Grade Level

The following tables look at what classes are typically taught at each grade level and the possible choices are available for the student. Not all courses will be offered every year. Green colored classes are offered 2017-18, while blue colored classes will be offered in future years.

Middle School Courses

Subjects	MIDDLE SCHOOL		
	Grade 6	Grade 7	Grade 8
ARABIC	ARAB 101 – Arabic as a Foreign Language Level 1		
	ARAB 102 – Arabic as a Foreign Language Level 2		
	ARAB 103 – Arabic as a Foreign Language Level 3		
	ARAB 110 – Native Arabic 6		
		ARAB 111 – Native Arabic 7	
		ARAB 112 – Native Arabic 8	
	Grade 6	Grade 7	Grade 8
VISUAL ARTS	ART 101 – Art 6		
		ART 102 – Art 7/8	
			ART 102 – Art 7/8
	Grade 6	Grade 7	Grade 8
ENGLISH	ENG 101 – English 6		
		ENG 102 – English 7	
			ENG 103 – English 8
	Grade 6	Grade 7	Grade 8
ENGLISH LANGUAGE DEVELOPMENT	ESD 101 – MS ESD Level 1		
	ESD 102 – MS ESD Level 2		
	ESD 103 – MS ESD Support		
	Grade 6	Grade 7	Grade 8
MATHEMATICS	MA101 – Math 6		
	MA102 – Math 7		
		MA 103 – Pre-Algebra	
			MA 201 – Algebra 1

	Grade 6	Grade 7	Grade 8
MUSIC	MUS 101 – Music 6		
		MUS 102 – Music 7/8	MUS 102 – Music 7/8
PHYSICAL EDUCATION AND HEALTH	PE 101 – Physical Education 6		
		PE 102 – Physical Education 7/8	PE 102 – Physical Education 7/8
	Grade 6	Grade 7	Grade 8
SCIENCE	SCI 101 – Integrated Science 1		
		SCI 102 – Integrated Science 2	SCI 103 – Integrated Science 3
	Grade 6	Grade 7	Grade 8
SOCIAL STUDIES	SS 101 – World Geography		SS 101 – World Geography
		SS 102 – Ancient History	
		SS 103 – Medieval History	SS 103 – Medieval History

High School Courses

Subjects	HIGH SCHOOL			
	Grade 9	Grade 10	Grade 11	Grade 12
ARABIC	ARAB 201 - Arabic as a Foreign Language Level 1			
	ARAB 202 - Arabic as a Foreign Language Level 2			
	ARAB 203 - Arabic as a Foreign Language Level 3			
	ARAB 204 - Arabic as a Foreign Language Level 4			
	ARAB210 - Native Arabic 9			
		ARAB211 - Native Arabic 10		
		ARAB310 - Native Arabic 11		

				ARAB311 - Native Arabic 12
	Grade 9	Grade 10	Grade 11	Grade 12
VISUAL ARTS	ART201 - Introduction to Art			
		ART401 - AP® 2D Design		
	Grade 9	Grade 10	Grade 11	Grade 12
ENGLISH	EN201 - Communication and Composition			
		EN202 - World Literature		
			EN301 - American Literature	
				EN302 - English Literature
			EN401- AP® English Language and Composition	
	Grade 9	Grade 10	Grade 11	Grade 12
ENGLISH LANGUAGE DEVELOPMENT	ESD201 - HS ESD Level 1			
	ESD202 - HS ESD Level 2			
	ESD203 - HS ESD Support			
	Grade 9	Grade 10	Grade 11	Grade 12
MATHEMATICS	MA201 - Algebra 1			
	MA202 - Geometry			
		MA301 - Algebra 2		
			MA302 - Pre-Calculus	
			MA401 - AP® Statistics	
				MA402 - AP® Calculus
	Grade 9	Grade 10	Grade 11	Grade 12
MUSIC	MUS201 - Introduction to Music			
	Grade 9	Grade 10	Grade 11	Grade 12
PHYSICAL EDUCATION AND HEALTH	PE201 - High School Physical Education and Health			
	PE202 - High School Physical Education and Health			

	Grade 9	Grade 10	Grade 11	Grade 12
SCIENCE	SCI201 - Biology			
		SCI202 - Chemistry		
			SCI301 - Physics	
			SCI401 - AP [®] Chemistry	
				SCI402 - AP [®] Physics 1 or C
SOCIAL STUDIES	SS201 - World History 1			
		SS202 - World History 2		
			SS301 US History	
			SS302 Economics	
			SS303 Systems of Government	
		SS401 AP [®] World History		
	Grade 9	Grade 10	Grade 11	Grade 12
TECHNOLOGY	TEC201 - 21st Century Technology			
	TEC202 - Introduction to Python Programming Language			
			TEC401 - AP [®] Computer Science	

Course Descriptions

Fine Arts Courses: Performing Arts

MUS101: Music G6

Curriculum: Various music pieces; musical DVDs; music files

Grade Level: 6

Length: 1-2x/week (Full Year)

Prerequisites: None

Assessments: Projects; tests in music theory, history, rhythm, tonality, and vocal performance

The purpose of this course is to grow in musical literacy, expression and understanding. The students will learn to read, write, improvise and perform in duple and triple meter. They will learn about how music intersects with dance, acting and the visual arts in operas and musicals.

MU102: Music G7/8

Curriculum: Various music pieces; musical DVDs; music files

Grade Level: 7-8

Length: 1-2x/week (Full Year)

Prerequisites: None

Assessments: Projects; tests in music theory, history, rhythm, tonality, and vocal performance

Students will have the opportunity to develop reading, improvising and performance skills in a recorder ensemble (including sopranino, soprano, alto, tenor and bass recorders). They will compose and notate their own musical compositions before performing them. They will also study and analyze the musical heritage of various cultures around the world.

MU110: Middle School Musical Workshop

Curriculum: Various music pieces; musical DVDs; music files

Grade Level: 7-8

Length: 2-3x/week

Assessments: Drama and musical performance skills.

Students will work together to perform a musical. They will grow in their ability to sing alone and with others, harmonize, and project. They will also learn key elements about drama, such as staging, directions, and choreography. There will also be an emphasis on developing skills like teamwork, planning and fulfilling responsibilities.

MU201: Introduction to Music

Curriculum: Various music pieces; musical DVDs; music files

Grade Level: 9-12

Length: 2-3x/week (Full Year)

Prerequisites: None

Assessments: Projects; tests in music theory, history, rhythm, tonality, and vocal performance

The purpose of this course is to provide an overview of basic music theory and general knowledge about music, from classic to contemporary music building upon Music in Middle School. High School Music includes reading, listening, writing music, and vocal performance. Throughout the course, students will learn about musical history and musicians. The students will practice singing by reading notes, learning about basic musical techniques, and presentation skills. Students will focus on the general and interesting aspects of the music field.

MU210: High School Musical Workshop

Curriculum: Various music pieces; musical DVDs; music files

Grade Level: 9-12

Length: 2-3x/week

Assessments: Drama and musical performance skills.

Students will work together to perform a musical. They will grow in their ability to sing alone and with others, harmonize, and project. They will also learn key elements about drama, such as staging, directions, and choreography. There will also be an emphasis on developing skills like teamwork, planning and fulfilling responsibilities.

Fine Arts Courses: Visual Arts

ART101: Art G6

Curriculum: *Online Resources*

Grade Level: 6

Length: 1-2x/week (Full Year)

Prerequisites: None

Assessments: Projects, group critiques, sketchbook checks, quizzes, tests

This course provides an introduction to two-dimensional design and drawing skills through the creation of art and the study of art history. Students will be instructed in 2D design vocabulary, media, and processes. Color theory and color application are also explored. This course will give students an understanding of the basic elements of design and aesthetics. After studying the elements and principles of art, students will create a project (seven or eight in the semester) to reinforce their learning. Students will also learn and practice drawing skills to develop their observation skills and refine their technique and hand-eye coordination when creating artwork. Students will be asked to maintain a sketchbook on a weekly basis.

ART102: Art G7/8

Curriculum: *Online Resources*

Grade Level: 7-8

Length: 2-3x/week (Full Year)

Prerequisites: None

Assessments: Projects, group critiques, sketchbook checks, quizzes, tests

This course provides an introduction to two-dimensional design and drawing skills through the creation of art and the study of art history. Students will be instructed in 2D design vocabulary, media, and processes. Color theory and color application are also explored. This course will give students an understanding of the basic elements of design and aesthetics. After studying the elements and principles of art, students will create a project (seven or eight in the semester) to reinforce their learning. Students will also learn and practice drawing skills to

develop their observation skills and refine their technique and hand-eye coordination when creating artwork. Students will be asked to maintain a sketchbook on a weekly basis.

ART201: Introduction to Art

Curriculum: *Online Resources*

Grade Level: 9-12

Length: 2-3x/week (Full Year)

Prerequisites: None

Assessments: Projects, group critiques, sketchbook checks, quizzes, tests

This course provides an introduction to two-dimensional design and drawing skills through the creation of art and the study of art history. Students will be instructed in 2D design vocabulary, media, and processes. Color theory and color application are also explored. This course will give students an understanding of the basic elements of design and aesthetics. After studying the elements and principles of art, students will create projects to reinforce their learning. Students will also learn and practice drawing skills to develop their observation skills and refine their technique and hand-eye coordination when creating artwork.

Arabic Language Courses*

*The Ministry of Education determines additional courses taught in Arabic Language for relevant students including: Arabic Social Studies, Islamic Studies, and others. These courses are not described in this catalog.

ARAB101-103: Arabic as a Foreign Language Level 1-3

Curriculum: *Various Materials for Arabic as a Foreign Language*

Grade Level: 6-8

Length: 1 year

Assessments: Vocabulary dictation, projects, quizzes, unit tests, final exams

These courses are taught to non-native Arabic speakers and take students from the foundations of Arabic language learning to a high level of listening, reading, writing, and speaking. Students will learn at their appropriate level focusing on all four areas of language development while also learning relevant cultural elements throughout.

ARAB110, ARAB 111, and ARAB112: Native Arabic Language G6, G7, and G8

Curriculum: *Ministry of Education Arabic Language G6, G7, and G8*

Grade Level: 6, 7, and 8

Length: 1 year

Prerequisites: Grade level equivalency

Assessments: Vocabulary dictation, projects, quizzes, unit tests, final exams

This course, for native Arabic speakers, follows the guidelines set by the Ministry of Education and guides students through Arabic Language learning at grade level.

ARAB201-202, ARAB 301-302: Arabic as a Foreign Language Level 1-4

Curriculum: *Various Materials for Arabic as a Foreign Language*

Grade Level: 9-12

Length: 1 year

Prerequisites: None

Assessments: Vocabulary dictation, projects, quizzes, unit tests, final exams

These courses are taught to non-native Arabic speakers and take students from the foundations of Arabic language learning to a high level of listening, reading, writing, and speaking. Students will learn at their appropriate level focusing on all four areas of language development while also learning relevant cultural elements throughout.

ARAB210-211, ARAB 310-311: Native Arabic Language G9, G10, G11, and G12

Curriculum: *Ministry of Education Arabic Language G9, G10, G11, and G12*

Grade Level: 9, 10, 11, and 12 (*G12 not offered 2017-18*)

Length: 1 year

Prerequisites: Grade level equivalency

Assessments: Vocabulary dictation, projects, quizzes, unit tests, final exams

This course, for native Arabic speakers, follows the guidelines set by the Ministry of Education and guides students through Arabic Language learning at grade level.

English-Language Arts Courses

EN101: English G6

Curriculum: *College Board: Springboard English Language Arts 6*

Grade Level: 6

Length: 1 year

Prerequisites: None

Assessments: Digital and print projects, research work, class presentation, and various reading and writing assignments

The purpose of this course is to provide a foundation for advanced English classes that students will take throughout the remainder of their education. The literary focus of the class will be on a general survey of fiction and non-fiction. Literary concepts such as plot elements, figurative language, and characterization will be used to analyze and evaluate literature. The vocabulary focus of the class will be on basic skills such as parts of speech, contextual clues, and literal versus figurative meaning. The grammatical focus will be on correct capitalization, punctuation, sentence structure, and parts of speech. The compositional focus will be on well-constructed outlines, paragraphs, and summaries. Students will be required to write a variety of essays, 2-3 pages in length.

EN102: English G7

Curriculum: *College Board: Springboard English Language Arts 7*

Grade Level: 7

Length: 1 year

Prerequisites: None

Assessments: Digital and print projects, research work, class presentation, and various reading and writing assignments

The purpose of this course is to continue to build a solid foundation for further study of English in high school. This course will focus on in-depth analysis of the literary genres. The vocabulary focus of this course will be to further diction, spelling, correct choices of synonyms and antonyms, recognizing denotation and connotation. The grammatical focus

will be on written essays that demonstrate correct grammar usage and mechanics. The compositional focus will be on well-constructed and clearly-expressed paragraphs demonstrated in three or four written papers.

EN103: English G8

Curriculum: *College Board: Springboard English Language Arts 8*

Grade Level: 8

Length: 1 year

Prerequisites: None

Assessments: Digital and print projects, class presentation, research work, various reading and writing assignments, and class discussions

The purpose of this course is to actively involve students in learning through a focus on literature, writing, and grammar. Through a student-centered approach to the study of English, students gain practical reading, writing, listening, and speaking skills. The main reading is organized in thematic collections. Throughout the class, students will write a selection of works including a personal narrative, a critical essay analyzing text, and a research project.

EN201: Composition and Communication

Curriculum: *The Little, Brown Handbook*, Pearson

Grade Level: 9/10

Length: 1 year

Prerequisites: None

Assessments: Researched papers, speeches, debates, and multimedia presentations

The purpose of this course is to provide an overview of basic composition and communication skills. Through a student-centered approach to the study of English, students will gain practical reading, writing, listening, and speaking skills. The main text is organized to target the grammar, mechanics, and style in communication. Students will develop skills in research and academic writing across multiple disciplines, as well as hone oral communication and presentation skills.

EN202: World Literature

Curriculum: *Norton Anthology of World Literature*, Shorter 6th Ed.

Grade Level: 9/10

Length: 1 year (*not offered 2017-18*)

Prerequisites: None

Assessments: Literary critiques, research projects and papers, quizzes, exams, and a final portfolio presentation

The purpose of this course is to consider large world questions answered through the eyes of multicultural writers. Students will gain practical reading, writing, listening, and speaking skills. The main text is organized to target reading skills. The other text varieties are to show a large selection of voices from around the world. Students will study and analyze works of literature and will use the "masters" as models for their own writing.

EN301: American Literature

Curriculum: *Norton's Anthology of American Literature*, W.W. Norton & Company

Grade Level: 11-12

Length: 1 year

Prerequisites: EN201, EN202, or equivalent

Assessments: Literary critiques, research projects and papers, quizzes, exams, and a final portfolio presentation

The purpose of this course is to actively involve students in learning through literary analysis and writing. Through a student-centered approach to the study of English, students will gain practical reading, writing, listening, and speaking skills. The main text is organized around literary periods. Students will study and analyze works of literature to learn about American history, thought processes, and cultural ideas. Using various literary theories, students will analyze and evaluate works. They will use the “masters” as models for their own writing.

EN302: English Literature

Curriculum: *Norton Anthology of English Literature*

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: EN201, EN202, or equivalent

Assessments: Literary critiques, research projects and papers, quizzes, exams, and a final portfolio presentation

The purpose of this course is to actively involve students in learning through literary analysis and writing. The course will guide students through a chronological survey of the history of English literature. Students will gain practical reading, writing, listening, and speaking skills. The main text is organized by time and literary periods. Students will study and analyze works of literature and will use the “masters” as models for their own writing.

EN401: AP® English Language and Composition

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: EN201, EN202, and Teacher Recommendation

This course will be developed and offered in the future.

English Language Development (ELD) Courses

ESD101: Middle School Language Foundations*

Curriculum: *Ballard and Tighe: Champion of Ideas – Red/Blue*

Grade Level: 6-8

Length: 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this course is to prepare Level 1 students for a rigorous secondary education by taking their foundations in English to the next level. This class provides comprehensive language development for reading, writing, and grammar, as well as an academic vocabulary focus. The ESD department oversees students’ language development in core subject classes including science, social studies, and English. Students attend these core classes with the goal of acquiring academic English language skills. Teachers in these

classes work with the ELD teacher and students to provide modified curriculum, assignments, and assessments.

*Note – In some situations, Middle School Level 1 students will take Science and/or English as a Language Development class before proceeding into the mainstream material. The Language Foundations class may be taught in place of the student's social studies class in order to help develop the needed language skills.

ESD102: Middle School Language Development

Curriculum: *Ballard and Tighe: Champion of Ideas – Blue/Yellow*

Grade Level: 6-8

Length: 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this course is to prepare Level 2 students for a rigorous secondary education. This class provides comprehensive language development for reading, writing, and grammar. The ELD department oversees students' language development in core subject classes including science, social studies and English. Students attend these core classes with the goal of acquiring academic English language skills. Teachers in these classes work with the ELD coordinator and students to provide needed accommodations in curriculum, assignments, and assessments.

ELD103: Middle School Language Support

Curriculum: *Ballard and Tighe: Champion of Ideas – Red/Blue/Yellow*

Grade Level: 6-8

Length: 2-3x/week; 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this class is to supplement English language support for needed students. This class will build upon what is being taught in Middle School Foundations and Development. Some students may be taking Middle School Foundations at the same time as Middle School Language Support.

ELD201: High School Language Foundations*

Curriculum: *Ballard and Tighe: Champion of Ideas – Red/Blue*

Grade Level: 9-11

Length: 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this course is to prepare Level 1 students for a rigorous secondary education by taking their foundations in English to the next level. This class provides comprehensive language development for reading, writing, and grammar, as well as an academic vocabulary focus. The ELD department oversees students' language development in core subject classes including science, social studies, and English. Students attend these core classes with the goal of acquiring academic English language skills. Teachers in these classes work with the ELD teacher and students to provide modified curriculum, assignments, and assessments.

*Note – In some situations, High School Level 1 students will take Science and/or English as a Language Development class before proceeding into the mainstream material. Language Foundations class may be taught in place of the student's social studies class in order to help develop the needed language skills.

ESD202: High School Language Development

Curriculum: *Ballard and Tighe: Champion of Ideas – Blue/Yellow*

Grade Level: 9-11

Length: 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this course is to enable students to be successful in mainstream secondary education. Students will be expected to apply class skills to their secondary core classes. Teachers in these classes work with the ELD department and students to provide accommodations for enhancing students' acquisition of academic language proficiency in the subject areas.

ESD203: High School Language Support

Curriculum: *Ballard and Tighe: Champion of Ideas – Red/Blue/Yellow*

Grade Level: 9-11

Length: 2-3x/week; 1 year

Prerequisites: English Language Assessment Determining Level

Assessments: Vocabulary and grammar quizzes, unit tests, and group/individual projects.

The purpose of this class is to supplement English language support for needed students. This class will build upon what is being taught in High School Foundations and Development. Some students may be taking High School Foundations at the same time as High School Language Support.

Mathematics Courses

MA101: Math G6

Curriculum: *Go Math, 2015 Ed.*

Grade Level: 6

Length: 1 year

Prerequisites: None

Assessments: Chapter tests, spring and fall exams, quizzes, assignments, participation

The purpose of this course is to provide the foundation for continued study in mathematics throughout middle and high school. The first part of General Math will cover rational numbers, their operations, and their algebraic representations. Students will use various models to understand these concepts. The second half of the class will include topics such as equations and functions, geometry, square roots, and probability. Each lesson includes practice problems. The course is laid out sequentially with each lesson building on the previous, and each chapter contains a basic mathematical focus.

MA102: Math G7

Curriculum: *Khan Academy and Other Resources*

Grade Level: 6-7

Length: 1 year

Prerequisites: None

Assessments: Unit tests, spring and fall exams, quizzes, assignments, Khan Academy Mastery Challenge

The purpose of this course is to provide the foundation for continued study in mathematics throughout middle and high school. The first part of General Math will cover rational numbers, their operations, and their algebraic representations with an emphasis on integers. Students will use various models to understand these concepts. The second half of the class will include topics such as equations, geometry, data displays, and probability.

MA103: Pre-Algebra

Curriculum: *Khan Academy and Other Resources*

Grade Level: 7-9

Length: 1 year

Prerequisites: MA102 or teacher recommendation for skipping MA102

Assessments: Unit tests, spring and fall exams, quizzes, assignments, Khan Academy Mastery Challenge

The purpose of this course is to provide a strong foundation in algebra while preparing students for future study of geometry, probability, and data analysis. There is an emphasis on introduction to linear equations and graphs. Geometry focuses study on parallel lines and Pythagorean Theorem. Students will be introduced to irrational numbers and estimate irrational numbers without a calculator.

MA201: Algebra 1

Curriculum: *Pearson Algebra I, Khan Academy and Other Resources*

Grade Level: 8-9

Length: 1 year

Prerequisites: MA103

Assessments: Unit tests, spring and fall exams, quizzes, assignments, Khan Academy Mastery Challenge

The purpose of this course is to explain families of functions, with special emphasis on linear and quadratic functions. As students learn about each family of functions, they will learn to represent them as verbal descriptions, equations, tables, and graphs. They will also learn to model real-world situations using functions in order to solve problems arising from those situations.

MA202: Geometry

Curriculum: *Pearson Geometry, Khan Academy, and Other Resources*

Grade Level: 9-10

Length: 1 year

Prerequisites: MA103

Assessments: Unit tests, spring and fall exams, quizzes, assignments, Khan Academy Mastery Challenge

The purpose of this course is to explore the properties of Euclidean Geometry. Students will perform both algebraic and geometric proofs. The main areas of study include parallel and perpendicular lines, triangles, quadrilaterals, and polygons. Students will also explore transformations graphically and algebraically. They will also focus on properties of circles.

MA203: Algebra 2**Curriculum:** *Pearson Algebra II, Khan Academy, and Other Resources***Grade Level:** 10-12**Length:** 1 year**Prerequisites:** MA103**Assessments:** Unit tests, spring and fall exams, quizzes, assignments, Khan Academy Mastery Challenge

The purpose of this course is focused around families of functions including linear, quadratic, exponential, logarithmic, radical, and rational functions. As students study each family of functions, students will learn to represent them in multiple ways – as verbal descriptions, equations, tables, and graphs. Students will also learn to model real-world situations using functions in order to solve problems arising from those situations.

MA301: Pre-Calculus**Curriculum:** *Pearson Pre-Calculus, Khan Academy, and Other Resources***Grade Level:** 11-12**Length:** 1 year (*not offered 2017-18*)**Prerequisites:** MA202 and MA203**Assessments:** Skills check assessments, quizzes, daily practice work, and cumulative tests

The purpose of this course is to prepare students for either AP Calculus or AP Statistics. Pre-Calculus combines students' prior knowledge of Algebra 1 and 2, along with Geometry, to set the platform for Calculus and Statistics. Higher level trigonometry is also integrated throughout the course. Students will be able to model every type of function. At the end of this course, students will be prepared to take Calculus at the AP level.

MA401: AP® Statistics**Grade Level:** 11-12**Length:** 1 year (*not offered 2017-18*)**Prerequisites:** MA203

This course will be developed and offered in the future.

MA402: AP® Calculus AB or BC**Grade Level:** 12**Length:** 1 year (*not offered 2017-18*)**Prerequisites:** MA301

This course will be developed and offered in the future.

Physical Education and Health Courses

PE101: Physical Education G6**Curriculum:** Online resources**Grade Level:** 6**Length:** 2-3x/week (Full year)**Prerequisites:** None

Assessments: Tests, presentations, projects, writing assignments/journals, classwork, participation, etc.

The purpose of this course is to teach students the necessary physical skills, knowledge, and personal-social attributes needed to maintain a healthy and active lifestyle. Times of skill development are used to make students more successful at a variety of physical activities including: volleyball, basketball, Ultimate Frisbee, badminton, tumbling, recreational sports (ping pong, four square and aerobics), flag football, soccer, and possibly swimming. The course also includes health lessons throughout the year, which is indented to give students the necessary skills to make healthy choices. These lessons will include lecture, discussion, laboratory, and investigative settings. Health units include: Introduction to health, nutrition, the communication skills, healthy choices, and first aid.

PE102: Physical Education G7/8

Curriculum: Online resources

Grade Level: 7/8

Length: 2-3x/week (Full year)

Prerequisites: None

Assessments: Tests, presentations, projects, writing assignments/journals, classwork, participation, etc.

The purpose of this course is to teach students the necessary physical skills, knowledge, and personal-social attributes needed to maintain a healthy and active lifestyle. Times of skill development are used to make students more successful at a variety of physical activities including: volleyball, basketball, jogging, fitness activities, handball, flag football, badminton, and soccer. The course also includes health lessons throughout the year, which is indented to give students the necessary skills to make healthy choices. These lessons will include lecture, discussion, laboratory, and investigative settings. Health units include: Fitness, nutrition, personal health, tobacco, sports injuries, and first aid.

PE201: High School Physical Education

Curriculum: Online Sources

Grade Level: 9-12

Length: 2-3x/week (Full year)

Prerequisites: None

Assessments: Participation, homework tasks, quizzes, projects

The purpose of this course is to teach students the necessary physical skills, knowledge, and personal-social attributes needed to maintain a healthy and active lifestyle. Times of skill development are used to make students more successful at a variety of physical activities including: volleyball, team handball, flag football, jogging, badminton, Ultimate Frisbee, fitness activities, and possibly swimming. These skills are intended to help students discover activities they wish to pursue after high school. The course also includes health lessons throughout the year, which is indented to give students the necessary skills to make healthy choices. These lessons will include lecture, discussion, laboratory, and investigative settings. Health units include: Fitness, sports participation, methods of training, health and skill-related fitness, tobacco, muscular and skeletal systems, sports injuries and first aid. Students will also undertake a personal exercise program during the 2nd quarter, which, requires researching, planning, and undertaking a program to improve an aspect of either their physical or skill-related fitness.

Science Courses

SCI101: Integrated Science 1

Curriculum: *Integrated iScience, Course 1, Glencoe 2017 Ed.*

Grade Level: 6

Length: 1 year

Prerequisites: None

Assessments: Laboratory investigations, weekly quizzes, unit tests, in-class projects, presentations, formative exit tickets, and semester examination.

The Integrated iScience program starts off its first course with an introduction into many of the concepts from earth, life and physical sciences. Course 1 builds a strong foundations of skills, vocabulary, and content that is necessary as students continue through the Integrated iScience program and into high school. This course allows student to experience the close correlation in various branches of science.

SCI102: Integrated Science 2

Curriculum: *Integrated iScience, Course 2, Glencoe 2017 Ed.*

Grade Level: 7

Length: 1 year

Prerequisites: SCI101

Assessments: Laboratory investigations, weekly quizzes, unit tests, in-class projects, presentations, formative exit tickets, and semester examination.

This course reviews content learned in Integrated iScience Course 1 but also continues to build upon and dig deeper into the concepts previously learned to match students' growing intellectual level. The Integrated iScience program allows students to be hands-on and experience science in real-world applications in earth, life, and physical sciences.

SCI103: Integrated Science 3

Curriculum: *Integrated iScience, Course 3, Glencoe 2017 Ed.*

Grade Level: 8

Length: 1 year

Prerequisites: SCI102

Assessments: Laboratory investigations, weekly quizzes, unit tests, in-class projects, presentations, formative exit tickets, and semester examination.

This course reviews content learned in Integrated iScience Courses 1 and 2, but also continues to build upon and dig deeper into concepts previously learned to match students' growing intellectual level. The Integrated iScience program allows students to be hands-on and experience science in real-world applications in earth, life, and physical sciences. Students will also be engaging in a cumulative research project that draws upon the concepts explored over the course of the year.

SCI201: Biology

Curriculum: *Miller and Levine Biology Edition, Pearson, 2012 Ed.*

Grade Level: 9-10

Length: 1 year

Prerequisites: None

Assessments: Quizzes and tests, essay project, lab journal, Science Fair project, individual and team projects.

The purpose of this course is to introduce students to core biology concepts such as cellular and molecular biology, genetics and hereditary principles, ecology, evolution, and animals. The curriculum strongly emphasizes the development of problem-solving, critical thinking, and inquiry skills. This course provides students with a firm grasp of content ranging from microscopic cellular processes to the macroscopic interactions of organisms in the biosphere. Students will gain an appreciation for how our human population can become more fully integrated into the biosphere.

SCI301: Chemistry

Curriculum: *Chemistry: Matter and Change, Glencoe 2017 Ed.*

Grade Level: 10-12

Length: 1 year

Prerequisites: MA103

Assessments: Quizzes and tests, lab reports, individual and team projects.

The purpose of this course is to study the chemical nature of matter, including its composition, structure, properties, and changes. Designed as a year-long course, it focuses on a wide range of chemistry topics including: atomic theory, electron configurations, the periodic table, different types of chemical reactions, states of matter, gases and solutions. In addition to gaining a solid conceptual understanding of chemistry, students will be challenged to apply their chemistry knowledge to solve both conceptual problems and laboratory problems.

SCI302: Physics

Curriculum: *Physics: Principles and Problems, Glencoe, 2017 Ed.*

Grade Level: 10-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: MA103

Assessments: Quizzes and tests, lab reports, individual and team projects.

The purpose of this course is to study the physical properties of matter and energy, including: kinematics, forces, rotational motion, fluids, heat, electricity, light and sound. Students will grow in their understanding of physics as they study the content through collaborative learning techniques, direct instruction, and laboratory exercises. Significant emphasis is placed on communicating results clearly and effectively. This course uses a variety of instructional methods to provide students with a solid conceptual foundation in physics. Additionally, students will complete a large number of practice problems to gain skills in technical problem solving.

SCI401: AP® Chemistry

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: SCI301 and Teacher Recommendation

This course will be developed and offered in the future.

SCI402: AP® Physics 1 or C

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: SCI302 and Teacher Recommendation

This course will be developed and offered in the future.

Social Studies Courses

SS101: World Geography

Curriculum: *Introduction to Geography, Holt-McDougal, 2012*

Grade Level: 6-8

Length: 1 year

Prerequisites: None

Assessments: Chapter & unit tests, digital & print projects, class presentations & discussions, final exam

The purpose of this course is to provide a foundation for the study of geography for the middle school student. Students are introduced to basic geography skills, as well as physical and human characteristics of the western world. Topics include, but are not limited to, culture and climate regions, political regions and borders as well as understanding current global issues. The internet, literature sources, and projects are used to develop understanding of physical and cultural geography skills.

SS102: Ancient History

Curriculum: *Teach TCI, History Alive: The Ancient World*

Grade Level: 7-8

Length: 1 year (*not offered 2017-18*)

Prerequisites: None

Assessments: Chapter tests and quizzes, class participation, projects, chapter notebook, and final exam.

The purpose for the study of ancient history for the middle school student is to create a better perspective of the ancient world from the earliest human societies to the end of the classical era 500 C.E. Students will study ancient civilizations, innovations, cultural and social movements, the rise and fall of empires, and religions. Learning tools such as an online textbook, student notebook, primary sources. The internet, primary sources, news articles, class discussions, and individual projects will aid the student in forming knowledge about the ancient world and its impact on life today.

SS103: Medieval History

Curriculum: *Teach TCI, History Alive: The Medieval World and Beyond*

Grade Level: 7-8

Length: 1 year

Prerequisites: None

Assessments: Discussion participation, personal interest projects, regional quizzes & unit exams

The purpose for this course is to learn the history of the medieval world from approximately 500 – 1500 C.E. Students will study medieval innovations, cultural and social movements, rise and fall of empires, and religions. Learning tools such as an online textbook, student notebook,

primary sources. The internet, primary sources, news articles, class discussions, and individual projects will aid the student in forming knowledge about the foundations of the world they live in today.

SS201: World History 1

Curriculum: Pearson; *A History of World Societies*, 10th Ed., 2014, Bedford-St. Martin's

Grade Level: 9-10

Length: 1 year

Prerequisites: Successful completion of Middle School Social Studies

Assessments: Class tests, examinations, project work, assignments, discussion boards

The purpose of this course is to investigate ideas, controversies and developments in World History from the prehistoric era to the close of the European Middle Ages (1500). Topics include theories of cosmic beginnings; ancient Egyptian, Mesopotamian, Harappan and Eastern Civilizations; the beginnings of Daoism, Confucianism, Buddhism; ancient Greek thought and the Roman Republic; the formation of Classical societies; the unification of China; the origins and developments of Judaism and Christianity; the rise and fall of the early American Civilizations; the rise of Islam; African monarchies and empires; the Han, Tang, Song, and Mongol Empires; The Silk Road and the Commonwealth of Byzantium; the origins of the Ottoman Empire; Early and the High and Late Middle Ages.

SS202: World History II

Curriculum: *Teach TCI, History Alive: World Connections*

Grade Level: 9-10

Length: 1 year

Prerequisites: None

Assessments: Class tests, examinations, project work, assignments, discussion boards

The purpose of this course is to investigate ideas, controversies, and developments in World History from the era of the Renaissance and Protestant Reformation (roughly AD 1500) to the present. Topics include European expansion and overseas empires; the rise of Islamic Empires, Ming and Manchu China as well as the Tokugawa Shogunate; the Scientific Revolution, the Enlightenment, the American and French Revolutions, the Industrial Revolution, Latin American independence, Colonialism and Imperialism, the end of Imperial China, the Russian and Chinese Revolutions, Meiji Japan, and the World Wars. Topics will also include the post-WWII era and the Cold War into the 21st Century.

SS301: US History

Curriculum: *The Americans, Holt-McDougal, 2012.*

Grade Level: 11-12

Length: 1 Year

Prerequisites: SS201, SS202 preferred

Assessments: Class tests, examinations, project work, assignments, discussion boards

The purpose of this course is to provide students with a foundational knowledge of US History so they may acquire the necessary skills to analyze and understand the major events, trends, and ideas that shaped the history of the American people and other nations in relation to the U.S. Comparisons will be made with other nations to capture and open, more international vision. Major themes will include migration, colonization, nation building, expansion, slavery, the industrial revolution, civil war, industrialization, and World Wars.

More recent events such as civil rights, the Cold War, and terrorism will also be analyzed from a multifaceted perspective. The internet, primary sources, class discussion, and individual and group projects will be used to develop a frame of reference for the broader themes involved.

SS302: Economics

Curriculum: *Teach TCI, Econ Alive: The Power to Choose*

Grade Level: 11-12

Length: 1 Semester (*not offered 2017-18*)

Prerequisites: SS201, SS204

Assessments: Class tests, examinations, project work, assignments, discussion boards

The purpose of this course is to investigate the main ideas, principles, philosophies, and theories concerning both micro- and macro-economics while using the tools of logical thinking, critical analysis, and intelligent inquiry. Topics include supply and demand, scarcity, free enterprise, closed and open economies, the presuppositions underlying Capitalism and Marxism, the role and structure of markets and business organizations, banking and finance, GDP and other economic indicators, inflation, unemployment and poverty, the role of taxes, fiscal policies and international trade.

SS303: Systems of Government

Curriculum: *Teach TCI, Government Alive: Power, Politics, and You*

Grade Level: 11-12

Length: 1 semester (*not offered 2017-18*)

Prerequisites: SS201, SS204

Assessments: Class tests, examinations, project work, assignments, discussion boards

The purpose of this course is to introduce students to the fundamental concepts of government and to illustrate the diversity of the world's political systems. This involves the study of political science theory, methodology, and the study of specific world regions through recent political history into the present. Time permitting, other pertinent topics such as supranational organizations and contemporary international relations will also be analyzed.

SS401: AP® World History

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: Teacher Recommendation

This course will be developed and offered in the future.

Technology Education

EC201: 21st Century Technology

Curriculum: Various technology training resources

Grade Level: 9-12

Length: 1 year

Prerequisites: None

Assessments: Observations, discussions, projects, unit tests, presentations

The purpose of this course is to provide an overview of technologies used to run internet-based communications. Students will be working through projects that include websites, servers, photo collection databases, blogs, and social media programs. The class focus will be to plan, create, and manage projects that will benefit the school community, improve understanding and mastery of technology, and provide a moral base for engaging the world of the internet.

TEC202: Introduction to Python Programming Language

Curriculum: Severance, Charles. *Python for Informatics* v0.7

Grade Level: 9-12

Length: 1 year

Prerequisites: Pre-Algebra, Tech 201 or Equivalent Skills

Assessments: Coding assignments that progress in complexity and creative capacity.

This course is designed to equip students with a workable foundation in computer programming through mastery of the fundamentals of Python. Python is designed with students in mind, but powerful enough to be utilized by professional enterprises. Upon completing the course, the student should be able to create useful scripts in Python, as well as have a strong understanding of the general fundamentals of all coding languages, like data type, loops, iterations, functions, classes, file writing, and basic networking.

TEC401: AP® Computer Science

Grade Level: 11-12

Length: 1 year (*not offered 2017-18*)

Prerequisites: Teacher Recommendation

This course will be developed and offered in the future.

Other

This year and the future, other courses are being developed to meet the needs and interests of our students. Courses such as: College Preparation, Service Learning, Choir, Yearbook Design and more may be offered if the interest and ability is available. In addition, extra English language, mathematics, and special needs support is available and in some cases, required for students.

While TWS-RAK strives to cater to the needs of all our students, all course offerings are subject to change.