

December 3, 2009

For ACTION   X  

For INFORMATION \_\_\_\_\_

Board Agenda: Yes   X    
No \_\_\_\_\_

TO: The Honorable Yvonne Folkerts, Chairman, and  
Members of the Alexandria School Board

FROM: Morton Sherman, Superintendent

THROUGH: Cathy David, Deputy Superintendent  
Margaret Walsh, Executive Director, Secondary Programs  
William Clendaniel, Principal, T. C. Williams High School

ISSUE: **PROGRAM OF STUDIES: GRADES 9-12:**

**NEW DIPLOMAS and NEW DIPLOMA REQUIREMENTS**

**PROPOSED NEW COURSE OFFERINGS FOR 2010-11**

BACKGROUND: Annually, the School Board approves course additions and deletions to the high school Program of Studies, aligning these decisions with state and local diploma requirements and local priorities. Attached to this memo are:

1. The new requirements for standard and standard technical diplomas, effective for those students who enter ninth grade for the first time in 2010-2011.
2. The new requirements for advanced and advanced technical diplomas for students who enter the ninth grade for the first time in 2010-2011.
3. The list of course additions and deletions recommended for the high school program.

DISCUSSION: The Virginia State Board of Education has approved new diplomas and new diploma requirements for students who enter ninth grade for the first time in 2010-2011.

- The new Standard Diploma requires one full year course in Economics and Personal Finance as well as two full year courses in World Languages, Fine Arts or Career and Technical Education. This drops the number of electives to two.
- The new Standard Technical Diploma requires one full year course in Economics and Personal Finance and four full year courses in Career and Technical Education, with no Fine Arts or World Languages requirements. This drops the number of electives to two.
- The new Advanced Diploma requires one full year course in Economics and Personal Finance. It also requires two sequential elective credits above the World Language requirement. This increases the total number of credits needed to 26 rather than 24.
- The new Advanced Technical Diploma includes one full year course in Economics and Personal Finance, as well as three full year courses in Career and Technical Education. It maintains the requirement of three full year credits in World Languages. This increases the total number of credits needed to 27 rather than 24 and it eliminates all other electives, unless a student graduates with more than 27 credits altogether.
- An amendment to § 22.1-205 Driver education programs, House Bill 1782, passed by the General Assembly of Virginia, calls for *an additional parent/student driver education component to be included as part of the in-classroom portion of the driver education curriculum*. In compliance with the new legislation, the Alexandria City Public Schools will require a 90-minute parent/student traffic safety presentation, to include a) parental responsibilities regarding juvenile driver behavior; b) juvenile driving restrictions pursuant to the Code of Virginia; and c) the dangers of driving while intoxicated and underage consumption of alcohol.

Most of the course additions and deletions are related to Alexandria City School Board priorities as guided by the strategic plan and changes in the Virginia State School Board diploma requirements.

POLICY: IF Curriculum Development  
IKF Standards of Learning and Graduation Requirements

**FISCAL IMPACT:**

Once students have completed the course selection process for the 2010-2011 school year, we will look at what courses do not have sufficient enrollment to offer in 2010-2011. We will continue to conduct an annual review of course offerings to determine which courses do not provide the appropriate level of rigor and should no longer be included in the High School Program of Studies.

**ADDITIONAL INFORMATION:** If additional information is needed, please contact Dr. Margaret Walsh at 703 824 1531 or

**ACTION:** Approval of recommended new courses

**ATTACHMENTS:** New requirements for standard and standard technical diplomas  
New requirements for advanced and advanced technical diplomas  
Recommended course deletions and additions for 2010-2011

### GRADUATION REQUIREMENTS

**Note: Requirements for a student to earn a diploma from a Virginia high school shall be those in effect when that student enters the 9<sup>th</sup> grade for the first time.\***

Discipline Area	Current Standard Diploma* 2003-2004 through 2009-2010	New Standard Diploma* 2010-2011 and Beyond	Technical Standard Diploma* 2010-2011 and Beyond	Standard Verified Credits
English	4	4	4	2
History and Social Studies	4	4	4	1
Mathematics	3	3	3	1
Laboratory Science	3	3	3	1
Health/PE	2	2	2	
Fine Arts or CTE	1			
World Language, Fine Arts or CTE		2		
<b>CTE</b>			<b>4</b>	
Fundamentals of Human Growth and Development	1	1	1	
Economics & Personal Finance		<b>1 ***</b>	<b>1***</b>	
Electives- 2 Sequential **	4**	2	2	
Student Selected Tests				1
Total	22	22	24	6

\*\*\* Students who enter ninth grade in the 2010-2011 academic year and beyond must earn one full credit in an Economics and Personal Finance Course.

# To opt out of this requirement, follow the directions on pages ...

### GRADUATION REQUIREMENTS

**Note: Requirements for a student to earn a diploma from a Virginia high school shall be those in effect when that student enters the 9<sup>th</sup> grade for the first time.\***

Discipline Area	Current Advanced Diploma 2003-2004 through 2009-2010++	New Advanced Diploma* 2010-2011 and Beyond++	Technical Advanced Diploma* 2010-2011 and Beyond++	Advanced Verified Credits
English	4	4	4	2
History and Social Studies	4	4	4	2
Mathematics	4	4	4	2
Laboratory Science	4	4	4	2
Health/PE	2	2	2	
Fine Arts or CTE	1	1	1	
<b>CTE</b>			<b>3</b>	
World Language	3	3	3	
Fundamentals of Human Growth and Development	1 <sup>#</sup>	1 <sup>#</sup>	1 <sup>#</sup>	
Economics & Personal Finance		<b>1***</b>	<b>1***</b>	
Electives- 2 Sequential **	1	2		
Student Selected Tests				1
<b>Total</b>	<b>24</b>	<b>26</b>	<b>27</b>	<b>9</b>

++Advanced Studies Diplomas- one credit must be earned in an Advanced Placement or college-level course.

\*\*\* Students who enter ninth grade in the 2010-2011 academic year and beyond must earn one full credit in an Economics and Personal Finance Course.

# To opt out of this requirement, follow the directions on pages ...

## High School Program of Studies 2010-2011

### Recommended Course Additions and Deletions

#### *Alexandria Speaks* Grades 9-12

**0.5 credit**

**Course Description:** Through this semester humanities course students will focus on specific topics pertaining to Alexandria's history. They will develop research skills, examine questioning techniques, explore resources in the community, and collaborate with community stakeholders. Students will then create a finished product, which may include but is not limited to documentaries, books, children's books, and/or a website.

**Rationale:** The City of Alexandria has a rich history yet so many aspects of it have not been recorded. *Alexandria Speaks* is a course that will chronicle and preserve Alexandria's history by documenting its major contributors and events. Our students will learn of their city's origins, and as a result, will develop a new sense of pride in their community. Through our students' lenses we will record Alexandria's past and create a legacy for our future.

#### **Chinese III**

**1 credit**

**Prerequisites:** Chinese II, or equivalent

**Course Description:** Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying rights and responsibilities, future plans and choices, teen culture, the environment, and humanities. Please note: some familiar themes and topics from levels I and II may reoccur in level III. However, the spiral characteristic of the theme-based instruction requires students to demonstrate their communicative skills and linguistic sophistication at a new developmental level.

Chinese IV and Advanced Placement Chinese V will be offered in successive years.

## **Science Research Independent Study II**

**1 credit\***

**Grades 11-12**

**Co-requisite: Completion of science graduation requirements**

**Course Description:** This course gives students the opportunity to continue the work they began in the Science Research Independent Study I class. All performance expectations from the level I course continue. Students will continue to pursue internships and mentorships related to their field of study.

## **Health, Physical Education and Driver Education**

**Grade 10**

Add the following to the course description:

**An amendment to § 22.1-205 Driver education programs, House Bill 1782, passed by the General Assembly of Virginia, calls for an additional parent/student driver education component to be included as part of the in-classroom portion of the driver education curriculum. In compliance with the new legislation, the Alexandria City Public Schools will require a 90-minute parent/student traffic safety presentation, to include a) parental responsibilities regarding juvenile driver behavior; b) juvenile driving restrictions pursuant to the Code of Virginia; and c) the dangers of driving while intoxicated and underage consumption of alcohol.**

## **25<sup>th</sup> Hour Health and Physical Education**

**Grade 10**

**1 credit**

25<sup>th</sup> Hour Physical Education is an independent course that fulfills the tenth grade physical education requirement. Students enrolled in this course use heart rate monitors (provided) to analyze and record their workouts that take place independently before or after school hours. Correspondence with the instructor takes place during individual meetings before school and during lunch time; Blackboard is also used for communication and assignments. The driver education portion of the curriculum is taught daily from 7:30 to 8:25 a.m. for one quarter of the school year.

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## **PE 11-12: Fitness and Strength Training**

**1credit**

**Course Description:** The Fitness and Strength Training course is designed to improve student fitness through a variety of training methods with an emphasis on proper technique. Strength training will use four core lifts including the flat bench press, push press, power cleans and back squats. Fitness training will include a multitude of aerobic, anaerobic, plyometric, and agility exercises. The course also stresses the importance of maintaining flexibility through dynamic stretching for a warm-up and static stretching for a cool-down. Proper nutrition and its relationship to overall fitness is another key component to the course. This class is open to all male and female students who have completed 9th and 10th grade physical education.

## **Computer Information Systems**

**1 credit**

**Course description:** Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies.

### **Rationale:**

The Career and Technical Education Department recommends reconfiguring some of the Business and Information Technology course offerings. Discontinue offering **Keyboarding Applications** at the Minnie Howard Campus and **Computer Keyboarding** at the Main Campus. At the Minnie Howard Campus begin offering **Information Technology Fundamentals (6670)**, which is already in the approved Program of Studies. This course provides an overview of computer and information technology pathways and is an introduction to many of our upper level courses. Continue to offer **Principles of Business and Marketing** for one semester and pair it with **Computer Information Systems** for one semester. Completing these courses at the 9<sup>th</sup> grade level will enable students to make more informed decisions regarding the advanced courses they want to take to establish a true career pathway.

At the Main Campus offer a full year version of **Computer Information Systems**. Changing to a year long program would allow all students to learn keyboarding skills during the first quarter, and then use the remainder of the year to more fully develop their application skills. Students would remain with the same teacher the entire year and the teachers would be able to teach deeper into the content and application skills.

### **Engineering III (Dual Enrollment)**

**1-3 credits\*\***

**Prerequisites:** Introduction to Engineering and Research & Development in Engineering.

**Course description:** The content of the course is under review at the college level.

#### **Rationale:**

The Career and Technical Education Department recommends expanding the current Engineering Program to include a third level in the sequence. Engineering I (8490) was offered for the first time during the 2008-2009 school year and has grown to five sections of Introduction to Engineering and one section of Research & Development in Engineering (8491) this year. Offering **Engineering III** (8498) next year (2010-2011) would complete the sequence and would meet the Advanced Technical and Advanced Diplomas requirements that the student complete an AP or college level course.

The course would be offered for college credit through dual enrollment with Northern Virginia Community College. Currently the state curriculum for this course, **Technology Education Dual Enrollment with Postsecondary**, is limited. The specific course students would receive college credit for has not been finalized. The focus of the course would be *Statics in Engineering*.

In addition to offering college credit, students may be able to get real work experience either through co-op or internships. As a result the course may be offered for 1 or 3 credits. Students who choose to participate in a formal co-op in the engineering field would have the option of earning three credits, while those doing a lesser work experience would receive 1 credit. This would follow the model used in both the Business and Marketing Departments.

Students currently in both the Engineering I and Engineering II course were surveyed to identify interest in such a course. Over 50% of the students in the Engineering I course would be interested in taking a third level engineering courses. However, 67% of the students would be interested in a level III course if it was offered and they were entering their senior year.

Jobs in the Science, Technology, Engineering and Mathematics (STEM) fields are in high demand. The Economic Profile for this region shows that six of the top twenty, or 30 percent, of the growth occupations in this region are STEM related. This data mirrors that the national data, as reported by the Bureau of Labor and Statistics. This is area of high growth, high demand and high wages. Alexandria needs to develop more clearly defined STEM related career pathways. Having a clearly defined sequential program not only directly benefits students, but provides many indirect benefits. An increase in students taking higher level math and science courses will likely occur, because students will start to see the relevance and relationship between these courses. In addition, ACPS may be able to obtain grant money. The state and federal government are allocating money to develop STEM related programs. Locally both Arlington and Loudoun have received funding to develop Governor's Career and Technical Academies.

**Hospitality, Tourism & Recreation I****1 credit****Prerequisites:** Introduction to Hospitality, Tourism, & Recreation, Culinary Arts I & II

**Course description:** Students begin preparation for employment in hospitality industries by focusing on principles of operations in food services, recreation, hospitality planning, and business relations. Special attention is paid to the development of culinary skills (food sanitation, food preparation, and serving) and customer skills. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Rationale:**

T. C. Williams High School offers many courses that will prepare students for high demand service and technical fields. However we do not currently offer the complete courses for some of these programs. The hospitality industry currently is the second largest industry in the world, the largest employer, and offers great benefits to its employees. In the metropolitan Washington area the hospitality business is growing at a rapid rate. This field is beneficial to both the career focused student and the college bound student. Offering this course will allow many of our students to enroll in the Northern Virginia Community College pathways program: Hospitality, Tourism, and Recreation. Additionally, many colleges and universities offer this program of study, including George Mason University, Virginia Polytechnic University, Virginia State University, James Madison University, Johnson & Wales University, Marymount University, Old Dominion University, University of North Carolina, Florida International University, Baltimore International College, Temple University, and Morgan State University.

**Advanced Leadership (Dual Enrollment)****1 credit\*\*****Prerequisites:** Leadership Development

**Course description:** Students develop competencies in identifying individual aptitudes in relation to effective leadership skills, understanding organizational behavior, using effective communication in the workplace, handling human resources and organizational problems, supervising and training employees, resolving conflict, and planning for the future. Continuing education in leadership is emphasized as well as practical leadership experiences in cooperation with school and community leaders.

**Rationale:**

The Leadership Development Course was re-introduced at T. C. Williams High School this year with great success. The students in this program have brought a new sense of school spirit to TC and are learning more about themselves. The instructor teaching this course has started two student-based initiatives, TC Leads and TC Cares. Through TC Leads students participate as student leaders and plan programs for the school and students. They also participate in student organizations and school based advisory

committees. Through TC Cares, students give back to the community and engage in activities that support both the school and the community.

While the students are participating in activities they are also learning about different leadership styles and effective leadership. Through planning and implementing programs students are learning problem solving and time management. They are also introduced the roles and responsibilities of leaders. More importantly students are learning that they can be effective leaders. They have a new found belief in what they can achieve. These skills will help them no matter where they go after high school.

By completing the advanced level course students will further develop their leadership skills. They will mentor the first year students, modeling skills needed to be an effective leader. The Advanced Level course will be taught as a dual enrollment course through Northern Virginia Community College. The college level course is BUS 117- Human Relations and Leadership Development. One hundred percent of the underclassmen enrolled in the current Leadership courses said they would enroll in a second level course if it were available to them. In addition, they would recommend friends for the first course.

### **Virtual High School**

**1 credit per course**

The following courses are available to students through the Virtual high School program:

#### **Blogs, Wikis, and Web Tools: Research in a Digital Age**

9-12

#### **101 Ways to Write a Short Story (honors)**

9-12

#### **Academic Writing**

9-12

#### **Contemporary Irish Literature**

9-12

#### **Cultural Identity through Literature: Understanding Place (honors)**

11-12

#### **Mythology: Stories from Around the World**

9-12

#### **World Mythology**

9-12

#### **Young Adult Literature: Issues in Tolerance and Diversity**

09-12

#### **Screenwriting Fundamentals**

9-12

#### **Twentieth Century Women Authors Section: A Reflection of a Changing America**

(honors)

11-12

#### **To Kill a Mockingbird: Maycomb - Microcosm to the World**

9-12

**Shakespeare in Films**

11-12

**Poetry Reading and Writing**

9-12

**Literacy Skills for the 21st Century**

9-12

**Introduction to English Literature and Composition (honors)**

9-12

**Career Awareness for the New Millennium: Life Skills/Health**

9-12

**Who Do I Want To Be When I Grow Up?**

9-12

**Preparing for College Admissions and Financial Aid**

9-12

**American Popular Music**

9-12

**Art History: Renaissance to Present (honors)**

10-12

**Arts and Ideas: The Best of Western Culture (Honors)**

10-12

**Creating Art History**

09-12

**Fundamentals of Music Composition**

09-12

**History and American Pop Music**

9-12

**History of Photography (honors)**

10-12

**Music Composition: Exploration of Style**

9-12

**Music Listening and Critique**

9-12

**Geometry and Algebra Applications: How to Use Math in the Real World**

9-12

**Introduction to Calculus AB (honors)**

9-12

**Introduction to Statistics (pre-AP)**

9-12

**Math You Can Use In College**

10-12

**Mathematical Reasoning and Logic**

10-12

**Mathematics of Electricity: Careers in Electric Power**  
9-12\*

**Number Theory: Patterns, Puzzles and Cryptography**  
9-12

**Advanced Topics In Chemistry (honors)**  
11-12

**Animal Behavior and Zoology (honors)**  
11-12

**Bioethics Symposium (Honors)**  
9-12

**Biotechnology**  
10-12

**Chemistry II: Chemicals of Civilization**  
10-12

**DNA Technology**  
9-12

**Environmental Chemistry (honors)**  
9-12

**Epidemics: Ecology or Evolution**  
11-12

**Evolution and the Nature of Science**  
10-12

**Forensic Science**  
11-12

**Genes and Disease (honors)**  
10-12

**Great Inventions and Scientific Discoveries**  
9-12

**Integrated Mechanical Physics with Logical Reasoning: Mechanics in Physics**  
(honors)  
12

**Introduction to Biology (honors)**  
9-12

**Introduction to Chemistry (honors)**  
9-12

**Introduction to Environmental Science (honors)**  
9-12

**Introduction to Physics B (honors)**  
9-12

**Meteorology: A Study of Atmospheric Interactions**  
9-12

**Nuclear Physics: Science, Technology & Society**  
10-12

**Oceanography: A Virtual Semester at Sea (honors)**  
9-12

**The Human Body**

9-12

**Preveterinary Medicine (honors)**

11-12

**Advanced Placement Government and Politics: Comparative**

12

**Advanced Placement Human Geography**

**10-12**

**American Multiculturalism**

9-12

**American Foreign Policy**

11-12

**Community Service-Learning: You Can Change the World!**

9-12

**Constitutional Law**

11-12

**Criminology Section (honors)**

**11-12**

**Current Issues in American Law and Justice**

11-12

**Democracy in America?**

9-12

**Eastern and Western Thought (honors)**

10-12

**Gods of CNN: The Power of Modern Media**

11-12

**Introduction to Economics (honors)**

9-12

**Introduction to Government (honors)**

9-12

**Introduction to Psychology (honors)**

9-12

**Introduction to U.S. History (honors)**

9-12

**Lewis and Clark's Expedition: An Interactive Journey**

9-12

**Maritime History: Riders on the Storm, The Story of the United States Life-Saving Service 1870-1920**

9-12

**Pearl Harbor to the Atomic Bomb: The Pacific War, 1941-1945**

10-12

**Philosophy I (honors)**

10-12

**Practical Law: What You Need to Know About the Law**

10-12

**Psychology of Crime (honors)**

11-12

**Sports and American Society**

9-12

**The Golden Age of Classical Greece (honors)**

11-12

**The Glory of Ancient Rome (honors)**

11-12

**The Holocaust**

10-12

**The Vietnam War**

11-12

**World Conflict, a United Nations Introduction**

10-12

**World Religions**

9-12

**Chinese I**

9-12

**Chinese II**

9-12

**Chinese III**

9-12

**Chinese IV**

9-12

**Portuguese I**

9-12

## **Music Laboratory/Guitar**

**Grades 10-12**

**.5 credit** (*from full year to semester*)

This course is designed to reach students who have never played guitar. Emphasis is placed on learning to play melodies and a few chords. Students learn music fundamentals, such as note reading, theory, and related musical knowledge. The course acquaints students with various styles of music, including folk, classical, jazz, rock; provides opportunities for group playing; and although there are some basic minimum expectations, lets students advance at the own rates. Students provide their own instruments. This course would provide an additional option for students taking half-year courses, with the potential for the music department to reach an even greater number of non-performance oriented students.

**Costs:** No additional costs would be incurred.

**Music Technology**  
Grades 10-12

**1 credit**

This class is intended for music students who are looking for additional music-related electives, as well as students who are not currently enrolled in performance-based courses. These students have an interest in music composition and/or production, but have little or no school music experience. Enrollment preference will be given to seniors and juniors who have completed their sequential elective requirements.

**Costs:** The school division purchased the required hardware and software several years ago.. No additional costs would be incurred.

**Chamber Music 8<sup>th</sup> period**  
Grades 9-12

**.5 credit**

This chamber music course will give students an opportunity to explore new literature and performance dynamics through more individualized instruction. Skills learned in chamber ensembles strengthen individual skills which in turn equips the orchestra program with stronger performers.

**RATIONALE:** To create a new music course (.5 credit pass/fail) in which students will have the opportunity to perform in small groups such as quartets and quintets. An ACPS director would oversee the program, and have a budget to bring in outside clinicians to work with the students. The groups would be made up of 2-5 students, of any instrumentation – voice, percussion, strings, winds, brass, piano, etc.

There is a significant need for this course of study in the City of Alexandria. The music departments at T.C. Williams, GW and Hammond receive calls from community and ACPS organizations on a regular basis asking for small groups to perform at various functions. If we are able to send more students into the community to share/showcase their talents our community outreach and organization would be that much stronger.

In addition, once our students graduate, musicians with chamber music training/exposure will have taken ownership of their musical education and will be able to continue playing after high school/college even if there is no organized program within their reach.

**Costs:** A budget of \$5,500 would enable the school to maintain up to nine different performing groups. The Music Department is currently involved in applying for grants and in-kind support.

**Stagecraft II**  
Grades 11-12

1 credit

**Prerequisites** – Stagecraft I or teacher recommendation based on previous technical experience.

Stagecraft II is a course that furthers the theatrical design and construction skills established in Stagecraft I. Stagecraft II students are expected to take leadership roles and assist in guiding new students in design technique, tool use, and other aspects of the Stagecraft course. Stagecraft II students will also be asked to assume more responsibility in assisting in the technical aspects of school theatre and music functions.

**Rationale:** - Offering Stagecraft II creates another sequential elective option for students. This course will provide significant leadership opportunities for students in this upper level course as it will be co-taught during the Stagecraft I period.

**Costs:** No additional costs would be incurred.

*\* If a grade of C or better is earned in an honors course, an additional 0.5 grade point average quality point will be awarded.*

*\*\* If a grade of C or better is earned in an Advanced Placement or Dual Enrollment course, an additional 1.0 grade point average quality point will be awarded.*