



Secondary School

Grade 12

Curriculum Handbook

2019-2020

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## Our Educational Philosophy

The mission of TLC International School is to plant seeds of knowledge that can grow to equip students academically, socially, physically, and spiritually for temporal and eternal success.

Our vision is to provide the best in education, partnering with parents to prepare students for life with academic tools, character training, development of social skills and spiritual mentoring.

Education is more than intellectual development. True education develops the mind, body, spirit and social skills of the child. Children at TLC learn cooperation, integrity, respect, creativity, and self-discipline. Positive values and behavior are rewarded in an environment that provides a safe haven for children to attempt new challenges without fear of failure.

## [An Introduction to Grade 12](#)

Grade 12 is a transition year for students. They are leaving the world of adolescents and becoming young adults. The senior year of high school is marked by preparation for the next part of life's journey. Their coursework is academically rigorous as they take classes such as physics and pre-calculus. An ethics class asks students to examine their values and to be prepared to defend why they believe what they believe. Grade 12 marks final preparations for post-secondary learning. Students begin their year by meeting with the guidance counselor to make sure the student is on track to graduate. In first semester grade, students may be retaking standardized tests. Many are completing college applications, exploring interests in possible career options, and creating a college savings plan. In the second semester, seniors anxiously await their acceptance letters from the institutions that they applied to the fall. Students in grade 12 have scheduling options, a senior can attend school all day but have the option to be dismissed early, after lunch, if they are on track for the accrual of 27 college preparatory credits. The year culminates with a graduation ceremony to celebrate the completion of this educational milestone.

## [AERO Standards](#)

“AERO provides a framework for curriculum consistency across grades K-12 and for stability of curriculum in overseas schools, which typically have a high rate of teacher turnover. AERO’s resources, workshops, and professional consultation services help overseas schools implement and sustain standards-based curricula. This effort is in alignment with research-based trends in the development of curriculum worldwide, and particularly with the Common Core initiative in the U.S.”

Retrieved from: <http://www.projectaero.org/>

## Expected Student Outcomes

### **Our Students will be...**

#### **Truth Seekers**

Who...

- understand absolute truth exists
- discern by questioning

#### **Reading and Writing Specialists**

Who...

- discover the world and themselves through the art of reading and writing
- who communicate effectively

#### **Independent Thinkers: Critical and Creative**

Who...

- analyze and apply knowledge across content areas and in the world around them

#### **Nurtured Worldview: Global Thinkers**

Who...

- respect and appreciate all cultures, customs and mindsets
- work collaboratively in diverse groups

#### **Innovative Learners: Multiple Intelligences**

Who...

- are aware of and use to their advantage their own learning styles
- develop other learning styles

#### **Technologically Capable**

By...

- competing in the ever growing, highly innovative technological front

#### **Yielding Exceptional Results**

By...

- striving for excellence in every aspect of their spiritual, academic, physical and

## Understanding by Design

“Our lessons, units, and courses should be logically inferred from the results sought, not derived from the methods, books, and activities with which we are most comfortable. Curriculum should lay out the most effective ways of achieving specific results... in short, the best designs derive backward from the learnings sought.”

- Grant Wiggins and Jay McTighe in their book Understanding by Design

UBD (Understanding by Design) is a technique of delivering content introduced by Grant Wiggins and Jay McTighe. The methods laid out in this educational technique offer a way of designing courses and delivering content through “Backward Design”. Students at TLC participate in units of study that cover standard driven topics determined by the AERO standards. TLC uses the UBD methods of teaching to ensure courses taught at TLC cover a series of standard based units. These units are designed in a way that ensures quality understanding is provided to all students enrolled in courses at TLC. Content delivery then includes a variety of quality teaching strategies and assessment techniques while keeping a standard based focus in every classroom. This unit based planning approach follows a 3-stage process of Backward Design.

### **Stage 1 - Identify Desired Results**

In order to determine if our students are achieving our desired results we must determine the what the desired end result is. If we teach with this in mind we make sure that everything that occurs in each course is bringing students closer to that goal.

### **Stage 2 – Determine Acceptable Evidence**

It is very important that before we teach we determine what assessments and indicators we will use to determine if students are progressing to an understanding of each standard covered in the courses taught. Evidence may be gathered through projects, questioning, quizzes, papers, group projects, lab projects, written tests, discussions and more.

### **Stage 3 – Plan Learning experiences and Instruction**

After determining the end goal and identifying the evidence that will determine student achievement the daily lessons are determined. Daily lessons are carefully planned and carried out by teachers to support and reach those desired results. Each day students are given a clear objective that lines up and supports the mastery of the goals determined and indicated by the standards covered in each unit.

This approach ensures there are no gaps in the curriculum and all standards are covered in TLC International School’s courses. The aim is to ensure the best possible method of content delivery is given to all TLC students. The students’ learning and understanding is the focus in UBD’s ‘Backwards Design.’ Through this method of ‘Backwards Design’ we can ensure that the indicators of student learning are achieved in every single course offered at TLC.

## The Gradual Release Model

The Gradual Release model, developed by Doug Fisher and Nancy Frey, is a broadly recognized approach for moving classroom instruction from teacher-centered to student-centered. This model includes 4 steps: “I do it”, “We do it”, “You do it together”, and “You do it independently”.

During the “I do it” step, the teacher plays an important role in the delivery of the content. Explicit teaching, modelling, and ‘think aloud’ are common strategies used by the teacher during this step.

As the students begin to acquire the new skill or information, the responsibility of learning begins to shift from teacher-directed instruction to student-centered activities. During the “We do it” stage, the teacher uses strategic questions, prompts, and cues to guide students towards mastery of an objective.

“You do it together” is where students collaborate, and depend on other classmates to meet objectives. During this time of instruction, the teacher will move among groups to clarify any misconceptions.

Finally, the full responsibility of learning shifts to the student during the “You do it alone” step. During this independent practice, students rely on their notes and classroom activities to work alone. This is a great opportunity for teachers to evaluate student work and provide further feedback.

## Grading

A+ 97-100	B+ 87-89	C+ 77-79	D+ 67-69	F 59 and below
A 93-96	B 83-86	C 73-76	D 63-66	
A- 90-92	B- 80-82	C- 70-72	D- 60-62	

## Class Grading Scale

- **Tests/Projects:** 35%-40%
- **Final Exams:** 10%-15%
- **Class work:** 50% (such as homework, participation and quizzes)

## Subject Specific Information

### English Language Arts

#### Course Description

Students engage in analysis of autobiographical nonfiction, speeches, poetry, drama, and fiction. The grade 12 modules comprise classic and contemporary voices including Malcolm X with Alex Haley, Leslie Marmon Silko, Henry David Thoreau, Benazir Bhutto, Jared Diamond, William Shakespeare, Tennessee Williams, Jhumpa Lahiri, and Nikolai Gogol. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

#### Course Outline

**Module 1:** “All of our experiences fuse into our personality. Everything that ever happened to us is an ingredient.”: Reading and Writing Personal Narratives

**Module 2:** “I ask for, not at once no government, but at once a better government.”: Exploring Complex Ideas through Craft and Structure

**Module 3:** Researching Multiple Perspectives to Develop a Position

**Module 4:** “I continually find myself in the ruins/ of new beginnings”: Analyzing the Interaction of Central Ideas and Character Development

Retrieved from: <https://www.engageny.org/>

### Mathematics: Precalculus

Precalculus combines concepts of trigonometry, geometry, and algebra that are needed to prepare students for the study of calculus. The course strengthens students’ conceptual understanding of problems and mathematical reasoning in solving problems. Facility with these topics is especially important for students who intend to study calculus, physics, other sciences, and engineering in college. The main topics in the Precalculus course are complex numbers, rational functions, trigonometric functions and their inverses, inverse functions, vectors and matrices, and parametric and polar curves.

#### Curriculum Outline

##### **First Quarter**

- Introduction to Precalculus
- Trigonometry –Part I
- Trigonometry –Part II
- Polynomials
- Functions

##### **Second Quarter**

- Inverse Functions –Part I
- Inverse Functions –Part II
- Equations –Part I
- Equations –Part II
- Matrix Algebra –Part I

##### **Fourth Quarter**

- Matrix Algebra –Part II
- Sequences
- Statistics –Part I
- Statistics –Part II
- Biography/ Apologetics

##### **Third Quarter**

- Limits and Calculus
- Differential Calculus
- Differential Calculus Application
- Integral Calculus



## Science: Physics

### Course Description

Physics unites every discipline the student has accumulated in high school. It is a course applying mathematics to observation and demonstrating those relationships through the rigor of experiment. Physics requires scientific literacy for research and scientific inquiry in following the front lines of such a dynamic field. These frontiers explore boundaries of physical knowledge deeper than the atom and as vast as the universe itself. Every facet challenge everyday perception as the history of testing ideas is used for testing the ideas of the future.

### Curriculum Outline

Foundations of Physics	Space Race*
Geocentrism/ Heliocentrism*	Work and Energy
Motion in One Dimension	Momentum
Vectors	Teleological Physics *
Kinematics in Two Dimensions	Waves
Relativity	Thermodynamic laws
Frame of Reference*	Electromagnetism
Dynamics	Optics
Fundamental Forces*	Quantum Reality*
Circular Motion	$E = mc^2$

## Social Studies: Economics and Government

### Economics (Fall)

#### Course Description

Economics is the study of how individuals, groups, and countries deal with the problem of limited resources and unlimited wants and needs. This course helps students gain a deeper understanding of important concepts such as tradeoffs, opportunity cost, supply and demand, saving and investing, production and consumption, fiscal and monetary policy, inflation and unemployment, and trade policy. Upon successful completion of the course students should be better able to assess the economic policy decisions that affect them, their community and their country.

#### Course Outline

- Week 1 Getting Acquainted
- Week 2 Scarcity, Choice and Decisions
- Week 3 Factors of Production
- Week 4 Economic Systems
- Week 5 Microeconomics - Markets and Competition
- Week 6 Supply and Demand
- Week 7 Prices -How are prices formed?
- Week 8 Marginalism and Consumer Behavior
- Week 9 Market Failure and Government
- Week 10 Macroeconomics - Measurement of the economy
- Week 11 Economic Instability
- Week 12 Fiscal Roles of Government - Taxes and spending.
- Week 13 The Federal Reserve System

Week 14 International Economics-We are not in this world alone?

Week 15 Wrap up

## **Government (Spring)**

### **Course Description**

This course is designed for motivated students who are interested in attaining a well-rounded perspective in American government. The course will provide students with an introductory look at the major aspects of government that every American citizen should know. Students will become familiar with the major institutions, groups, and political beliefs in the American governmental system. Course activities will include discussion groups, short papers, peer feedback, interactive website assignments, and student projects. While significant content will be included as part of this course, a major focus will be on stimulating an interest and passion in the subject of government, with the idea of becoming an educated and involved civic citizen in an increasingly complex world.

### **Couse Outline**

Week 1 Start Here/What is Government?

Week 2 Limited Versus Unlimited Government

Week 3 Finding the Proper Balance

Week 4 The Constitution

Week 5 Animal Allegories

Week 6 The Legislative Branch

Week 7 The Executive Branch

Week 8 The Judicial Branch

Week 9 The Media

Week 10 Elephants and Donkeys: American Animal Farm?.

Week 11 American Ideals Versus Reality

Week 12 Campaigns and elections

Week 13 Individual Rights

Week 14 What Makes an Effective Civic Citizen?

Week 15 Wrapping Up

Retrieved from: <https://my.vhslearning.org/PublicCourseDescription.aspx?c=416>

Retrieved from: <https://my.vhslearning.org/PublicCourseSyllabus.aspx?c=203>

## **Electives**

High school students will be given the opportunity to participate in elective classes. Electives are designed by the teachers and chosen by the students and will allow students to experience a range of interesting academic courses. Students will receive 1 credit hour per year for electives. Elective choices will change each semester. Some options for electives may include the following\*: Journalism/Newspaper Publishing, Freshmen Seminar, Senior Project, Virtual High School Courses, Computer Programming, Sports Management, and Chinese Calligraphy (\*options will vary).