Welcome to ECHS!

Dear Families,

We are excited to share our work and plans for growing our young citizens into the next generation of thought leaders, nurturers, innovators, healers, problem solvers, and global stewards of our planet.

Since our approval from the Charter Appeal Board in 2014 to move toward high school, we’ve been researching schools, interviewing students and experts from around the country, listening to those on the cutting edge, listening to their successes and challenges, and revising our program to meet the needs of 21st century learners. The ECS model commits to working alongside students in authentic and thoughtful ways as they grow and evolve as people -- and our high school continues in this vein.

Our ninth grade academy will put our arms around students at this developmental milestone and ensure that they are prepared for academic rigor as well as the organization skills needed in a more independent learning environment expected in high school and beyond. Attention to developing strong relationships with our teaching team, and a holistic approach to students’ socioemotional development are critical components to our 9th grade experience. We believe in the power of a connected community, and the activities and experiences we have planned for this grade bolster relationships and trust.

Our sophomore, junior, and senior enter their secondary experience with the tools they need to drive their learning and portfolio of experiences to cultivate a pathway leading them to graduation and beyond. Our program will continue to support interdisciplinary learning, skill development, and attention to the development of the whole self. Our high school won’t look like the march through classes that we as grown ups experienced in the distant (and not-so-distant) past -- and yet, our learners will be diving deep into content, taking close looks at topics from multiple perspectives, and preparing for careers, colleges, entrepreneurial endeavors, as well as being empathetic, thoughtful humans in our world. Our program aligns to the Pennsylvania and Common Core Standards and meets the graduation credit requirements of the state of Pennsylvania. Additionally, students will be prepared for various pathways - college, career, and community readiness.

As you review our coursework and structures for this next phase of educational growth, take time to talk about your hopes and dreams with your child. Ask them about what they love, what they dream about, and what success looks like to them. Our job now and the years ahead is similar to when they were little -- assist them the journey, support them as they change, allow for mistakes, and inspire them to believe they can.

Thank you for joining us.

Jon McCann, CEO
Table of Contents

Mission Statement

About the Program
   Ninth Grade Academy
   Sophomore, Junior, and Senior Years

General High School Guidelines and Requirements
   Graduation Requirements
   Academic Calendar
   Summer Bridge Program
   Credits
   College-in-High School/Dual Enrollment
   Promotion
   Keystone Exams
   Graduation Project
   Grading Scale
   Incomplete Grades
   Scheduling

Coursework at Environmental Charter High School
   About the Academic course work at ECHS
   High School Majors
   Core Content Courses
      About Language Arts.
      About Mathematics.
      About Science.
      About Social Sciences.
   Lab Courses
   Studio Courses
   Electives

ECHS Sample Schedule
Mission Statement

We aim to grow the complete individual through the development of connections, relationships, and experiences that unites us in a common humanity worthy of our own children.

About the Program

We are providing a pathway from dependency to independence, and supporting students to grow and evolve over their time at Environmental Charter High School (ECHS). Aligned with our mission and values, the ECHS experience focuses on the following:

- **Integrate.** Consistent with our K-8 program, ECHS intentionally provides opportunities for content to be shared and experienced across disciplines. Additionally, ECHS creates project-based learning opportunities throughout the student experience.
- **Grow.** Students develop independence through coaching, authentic relationships, and routines that support longevity, health, and wellness.
- **Connect.** ECHS provides opportunities for collaboration and experiences in the real world, through partnerships, internships, dual enrollment, apprenticeships, and civic engagement.
- **Extend.** Students build competencies and skills to organize, analyze, communicate, and express ideas, and to actively engage as a citizen of the world.
- **Focus.** Students build independence through the identification of a pathway or “major” in sustainability to capstone the environmental literacy experience at ECS, and prepare for college, career, and community readiness.

ECHS’s objective is to support the development of the whole person and to grow the ability to systems-think in order to successfully navigate relationships, career endeavors, or personal journeys in the 21st century.

Ninth Grade Academy

Our ninth grade academy will prepare students for the academic rigor as well as the organization skills needed in a more independent learning environment expected in high school and beyond. There is power in a connected community, and the activities and experiences planned for ninth grade bolster relationships and trust.
Guiding goals for the program:
- ECS strives to develop **strong student-teacher engagement** in 9th grade
- ECS strives to **build student achievement through self-efficacy and executive functioning skills and access to opportunity**
- ECS strives to **personalize academics and socioemotional supports** for every 9th grader
- ECS strives to create a unique learning experience that crosses disciplines, builds global awareness, and **deepens awareness of sustainability and environmental practices**.

**Sophomore, Junior, and Senior Years**

Sophomores, juniors, and seniors enter their secondary experience with the tools they need to drive their learning and have a portfolio of experiences to cultivate a pathway leading them to graduation and beyond. Students participate in interdisciplinary learning, skill development, and pay attention to the development of the whole self. Students dive deep into content, taking close looks at topics from multiple perspectives, and prepare for careers, colleges and entrepreneurial endeavor.
General High School Guidelines and Requirements

Graduation Requirements

To graduate and receive a diploma in the state of Pennsylvania, a student must obtain 21 specific credit requirements. Each high school in the Commonwealth adds requirements based on the program needs and excellence toward college and career readiness.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number Units</th>
<th>Year Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>9th, 10th, 11th, 12th</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>9th, 10th, 11th, 12th*</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>9th, 10th, 11th, 12th*</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>3</td>
<td>9th, 10th, 11th, 12th*</td>
</tr>
<tr>
<td>Arts/Humanities Courses (may include Spanish***)</td>
<td>2</td>
<td>9th-12th</td>
</tr>
<tr>
<td>Additional credits/electives and/or Spanish*** (Labs and Studio)</td>
<td>7</td>
<td>9th-12th**</td>
</tr>
<tr>
<td>Wellness Education</td>
<td>1 (.25 each year)</td>
<td>9th, 10th, 11th, 12th</td>
</tr>
<tr>
<td>Graduation Project</td>
<td>.5</td>
<td>12th</td>
</tr>
<tr>
<td>TOTAL REQUIRED at ECHS for Graduation</td>
<td>23.5</td>
<td></td>
</tr>
</tbody>
</table>

*course not required, can be counted as “elective”

**Lab and Studio courses in grades 9-12 count toward this requirement

***Students are required to take Spanish in 9th grade. Students can elect to take Spanish in 10th, 11th, and 12th grade, for .75 unit per course. Spanish may be counted as “elective” and/or humanities course requirements

Credits

All credits toward graduation must be earned at ECS, at an accredited high school from which one has transferred, or from an accredited summer, night, or alternative school. Credits may not be earned from private tutors or correspondence schools. All transfer or remedial credits must be approved by the administration. Credits will be awarded for successful passing of the course.

Credit Requirements. Any course in arts, music, or Spanish may satisfy the humanities credit requirement, as well as additional specialty offerings available uniquely based on
student and faculty interest in a given year. One course may not serve both a humanities requirement and an electives requirement, however. Physical education/Health/Wellness is required every year, 9-12, with .25 units accomplished each year.

**Academic Calendar**

The school calendar is divided into two semesters. Each semester will consist of two nine-week grading periods. Reports of academic progress will be available via ESchool+. Ninth graders are required to participate in a Summer Bridge program, beyond the traditional school year.

Units for all classes are as follows

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Year</td>
<td>1 Unit</td>
</tr>
<tr>
<td>Each Semester</td>
<td>½ Unit</td>
</tr>
</tbody>
</table>

**Summer Bridge Program**

ECHS’s Summer Bridge Program for incoming freshmen will prepare students for the rigor and routines need for the start of secondary education. Students will spend half the day at school brushing up on academics, completing a reading/writing project, making new friends, getting to know their new teachers and learning the ins and outs of 9th grade life, among other activities. This program will take place in August each year.

As needed, additional Summer Bridge programs will be available for rising students in 10th, 11th, and 12th grade.

**College-in-High School/Dual Enrollment**

ECS is exploring a partnership with Chatham University to develop a curricular experience for high school students. Chatham University is the alma mater of environmental icon Rachel Carson (Class of ’29) and is recognized as a leader in the field of sustainability, having been selected as one of the Top 50 Green Colleges by The Princeton Review. Eden Hall, Chatham’s campus in Pittsburgh’s North Hills, opened in 2014 as the world’s first fully sustainable campus in higher education. Benefits of this alliance could include the ability for dual-enrollment, college-in-high school courses, and the opportunity for students to visit and engage in experiences at Eden Hall Sustainability Campus.

College-in-High School and dual enrollment courses may be offered in the 11th and 12th grade years, and are based upon students’ needs, the availability of courses at Chatham University, and the partnership courses designed by ECHS faculty and Chatham University. Through college-in-high school courses, students can earn high school and
college credit on the ECS campus in association with the cooperating accrediting college or university.

Through dual enrollment, students can earn high school and college credit on the campus of a post-secondary institution. Currently, ECHS is working with Chatham University to provide a series of course options for juniors and seniors that expands access to high level content or provides deeper dives into a student designed focus of study (see High School Majors, page 9).

Both options allow for enrichment and acceleration of content and experiences, depending on the passion, needs, and schedule of the student.

Promotion

A student must successfully complete at least 5.5 units in grade 9 to be promoted to grade 10. A student must have successfully completed at least 12 units in grades 9 & 10 to be promoted to grade 11. A student must have successfully completed at least 18 units in grades 9, 10, & 11 to be promoted to grade 12.

Keystone Exams

The Keystone Exams are end-of-course assessments designed to assess proficiency in the subject areas of Algebra I, Biology, and Literature. Keystone Exams are typically taken during the spring of the year in which a student is enrolled in the appropriate course, regardless of the grade he or she is enrolled. If students do not achieve proficiency on these exams, they must complete a state approved equivalent program, assessment, or course.

Graduation Project

All students graduating from ECS must meet the requirements of the ECS Graduation Project. The goal of the project is to connect students and the school to the community, and engage in an experience that showcases a learner’s creativity, thinking, and understanding, specifically within the major selected by the student. The ECS Graduation Project will include a prescribed timeline to complete critical components of the project, including a pre-approved written proposal and final reflection, artifacts documenting the student’s learning process, and an oral presentation. The project is a requirement for graduation.

Grading Scale

Grading scale is: A=4, B=3, C=2, D=1, E=0
At mid-year, SEMESTER grades are used for full-year courses and FINAL grades are used
for 1st semester classes. At the end of the year, only FINAL grades are used for both semester and full-year courses. An “Earned Credit” is the credit value of each course adjusted by half for full-year courses at mid-year, or the actual earned credits for each completed course.

**Incomplete Grades**

Students receiving a grade of incomplete on their report cards are responsible for completing all work within a three-week period from the end of the nine weeks. If the student fails to accomplish this, the “I” will be changed to the grade the student had earned at the end of the quarter.

**Failure**

If a student fails a course, the course can be made up in an accredited and approved credit recovery program. If the course is not completed by the start of school in the fall, the student’s placement may be affected. Summer Bridge programs may be offered by ECHS to assist in credit recovery.

**Scheduling**

Students will have input with their class choices in conjunction with the recommendations of their current teachers. Incoming 9th graders will be scheduled through the middle school and the middle school counseling team.
Coursework at Environmental Charter High School

About the Academic course work at ECHS

The academic career at ECHS includes a focus on core content (academic courses), electives (interests and skill development) and interdisciplinary majors. The academic day is divided into courses, electives, studios, and labs. Each component of the day supports the academic trajectory of the student, including specialization in a student-chosen major and a capstone Graduation Project.

High School Majors

At the end of their 9th grade year, students will select a major to focus their course choices and out-of-school experiences as they grow in their high school career. Job shadowing, internships, apprenticeships, and the ECS Graduation Project are designed to support the student’s focus and prepare a student for college, career, and community readiness.

Students apply for a major at the end of their 9th grade year, after an exploration of topics and study in the Learning Lab course. Submissions will be reviewed by the leadership team consisting of the teachers, the high school principal, and the high school counseling team. In preparation for the major selection, students will gain career exposure and participate in job readiness workshops throughout their 9th grade year, as well as see connections to careers in their core classes. Students then apply for a major, and personalize their learning through elective choices, career/internship/apprentice experiences, and extracurricular activities. Students will design and complete the ECS Graduation Project with the lens of their chosen major.

- **Sustainability and Systems** (Environmental Science)
  Sustainability and Systems Pathway will lead students to discover ways to utilize the earth’s natural resources while simultaneously protecting them for future generations. Students in this pathway will combine ideas and methods from a variety of disciplines, such as the sciences, social sciences, and humanities, and explore topics ranging from ecology and natural resources to landscape architecture and urban planning to economics, sociology, and anthropology. Some students may delve into the balance between economic growth and conservation, environmental policies, or ethics. Graduation Projects may explore biodiversity of a community, access to food/farms, or an entrepreneurial solution to a local problem impacting the environment.
• **Social Justice and Equity** (Humanities)
  Social Justice and Equity Pathway helps students think across disciplines, through explorations of theories, concepts, case studies, and issues in social justice, equity and access, and sustainability. This major will explore areas such as conflict resolution, advocacy, policy design and implementation, sustainable business plans, and communication through different media. The major integrates the human experience into sustainability efforts and develops skills in the form of service, internships, and action at the local level. Graduation Projects may explore the impact of public art installation, the stories and histories of marginalized citizens in a town, or the design of community event/experience to connect people in new ways.

• **Global Citizenship** (Social Sciences)
  The Global Citizenship Pathway explores the personal footprint of citizenship through explorations of history, politics, cultures, and environment to understand the interconnected, global issues facing our planet. This major will integrate areas such as sustainable development, inequities in power, peace vs. conflict, and access to resources in an ever-changing world. Graduation Projects may explore other another culture from around the world, a dive into voters (or nonvoters) habits, or write a business plan that solves for a local problem.

• **Environmental Engineering and Sustainable Design** (Math/Design/Science)
  The Environmental Engineering and Sustainable Design Pathway focuses on the sustainable, healthy, equitable design of our built environment. This major will explore how the sciences and the systems and structures of design can protect and support the earth’s resources and adjust human impact on the planet. The major explores the planning and design of resilient, healthy, and socially-just cities and how intentional design can impact the world. Graduation Projects may explore indoor (or outdoor) air quality assessments in Pittsburgh, the design of a waste-water solution at house or business, or a plan for incorporating more trees or greenspace into a neighborhood.

Rachel Carson Certificate. Throughout the ECHS 4 years, students will engage in activities through on and off-campus activities surrounding environmental education and sustainability. In the spirit of Rachel Carson’s legacy, students will gain “badges” through experiences and skill-based activities that build connections to the environment.

---

**Core Content Courses**

Academic courses around core content are required for high school graduation, and a critical piece for students to actively engage in project-based learning. Core content courses also provide required knowledge for experiences in internships, access to
off-campus courses at Chatham and Eden Hall (or other university settings), and opportunities that enhance the ECHS program. Core content courses are a necessary piece to preparing students for college, career, and community readiness.

**About Language Arts.**

The literacy trajectory from 9th grade through the senior year is intended to build students’ skill set in communicating, reading critically, and assessing information. Students in 9th grade are required to complete a project declaring their “major” for high school, including a writing piece or portfolio. Students will continue to grow in skill and ability, and significant attention will be placed in the junior and senior years on communication skills and techniques for the required ECS Senior project.

**English/RLA I**

Designed to provide a highly rigorous experience, this course will challenge the reader and writer to further develop critical reading and thinking skills, as well as strong argumentative writing skills, by reading and working with complex pieces of fiction and nonfiction. Students will demonstrate understanding and mastery of the Pennsylvania Common Core Standards through formal and informal writing assignments, various assessments, performance tasks, formal and informal presentations, and class discussions. Students will also maintain a writing portfolio and complete a 9th grade writing project that supports the choosing of their high school “major”

**English/RLA II**

RLA II emphasizes reading, writing, speaking, and thinking, and how it relates to building knowledge, understanding, and communications to various audiences. From a literacy standpoint, students focus on close reading, critical analysis, and discussion of fiction, non-fiction, visual, and auditory texts. In terms of vocabulary, students will work with extensive lists of Latin and Greek vocabulary roots to enhance comprehension while reading, and in preparation for the SAT/ACT. Communication projects will feature practical application of writing and speaking skills for post-secondary education, the workplace, and “real life.” Creativity will be fostered through projects appealing to multiple learning styles and preferences, and scholarly writing will focus on an avoidance of common errors, refinement of voice, development of research skills, and application of the Point / Proof / Analysis formula to clearly communicate rich ideas.

**English/RLA III**

RLA III includes reading selections representing all forms of American literature. Vocabulary enhancement and remedial grammar are studied throughout the year. Writing assignments encourage students to develop paragraphs and compositions with original, logical, and specific details. This course pays significant attention to writing style/voice and communication tools to support the ECS Senior Project in the student’s defined major.
English/RLA III

RLA III is the capstone of the ECS Literacy program. This course cultivates the reading and writing skills that students need for college/career success and for intellectually responsible civic engagement. The course guides students in becoming curious, critical, and responsive readers of diverse texts, and becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes. The reading and writing students do in the course should deepen and expand their understanding of how written language functions rhetorically; to communicate writers' intentions and elicit readers' responses in particular situations. Reading and writing activities in the course also deepen students' knowledge and control of formal conventions of written language (e.g., vocabulary, diction, syntax, spelling, punctuation, paragraphing, genre). The course helps students understand that formal conventions of the English language in its many written and spoken dialects are historically, culturally, and socially produced. This course will support the year long development of the written/communication component of the ECS Graduation Project.

About Mathematics.

Mathematics follows a progression of course content from Algebra 1 through Calculus. Students engage with Core Content Standards and Mathematical Practice Standards in a coherent, useful and logical way to enable them to learn how to make sense of mathematical problems. Students begin their study of Algebra 1 in 8th grade and have the ability to progress through to a college level math course taken at a local University by 12th grade. Students must earn 3 credits of math coursework by graduation. Each year-long course is the equivalent of 1 credit. Math course progressions will be determined with teacher recommendations and successfully completing prior coursework.

Math Pathways

<table>
<thead>
<tr>
<th>Pathway 1 (Typical Progression)</th>
<th>Pathway 2</th>
<th>Pathway 3</th>
<th>Pathway 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra 1: 8th grade</td>
<td>Algebra 1: 9th grade</td>
<td>Algebra 1: 8th grade</td>
<td>Algebra 1: 8th grade</td>
</tr>
<tr>
<td>Geometry: 9th grade</td>
<td>Geometry: 10th grade</td>
<td>Geometry: 9th grade</td>
<td>Geometry: 9th grade</td>
</tr>
<tr>
<td>Algebra 2: 10th grade</td>
<td>Algebra 2: 11th grade</td>
<td>Algebra 2: 10th grade</td>
<td>Algebra 2: 10th grade</td>
</tr>
<tr>
<td>Precalculus: 11th grade</td>
<td>Precalculus: 12th grade</td>
<td>Precalculus: 11th grade</td>
<td>Precalculus: 11th grade</td>
</tr>
</tbody>
</table>
Math I - Algebra 1. In Algebra I, students engage in methods for analyzing, solving, and using quadratic functions. They deepen and extend their understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Utilizing the Mathematical Practice Standards, together with the content standards, students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Topics include equations and graphing, descriptive statistics, linear and exponential functions, polynomials and quadratic expressions, equations and functions and modeling with equations and functions. Students will take the Keystone Algebra exam following the completion of this course.

Math II - Geometry. Students explore complex geometric situations and deepen their understanding of geometric relationships moving to more formal mathematical proofs. Utilizing the Mathematical Practice Standards, together with the content standards, students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Topics are studied using both inductive and deductive approaches and include: congruence, constructions, similarity, proof, trigonometry, connecting Algebra and Geometry through coordinates, volume and 3D modeling.

Math III - Algebra 2. Algebra 2 builds off the work done in Algebra 1 with linear, quadratic, and exponential functions. Students extend their thinking in this detailed study of functions to include polynomial, rational, trigonometric, and logarithmic functions. Students also learn the expressions that define functions and model situations to solve equations. Utilizing the Mathematical Practice Standards, together with the content standards, students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Topics include solving quadratic equations over the set of complex numbers, solving exponential equations using the properties of logarithms, polynomial, rational, and radical relationships, trigonometric functions, exponential and logarithmic functions, inferences and conclusions from data.

Math IV - Precalculus. Precalculus is intended to prepare students to take higher level math courses including Calculus or a Dual Enrollment course through a local University. Students extend their understanding of complex numbers to points in the complex plane and further study the relationship between exponential and logarithmic functions. The course progresses through a study of functions and their graphs and students learn additional techniques for solving equations. Utilizing the Mathematical Practice Standards, together with the content standards, students experience mathematics as a
coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Topics include complex numbers, transformations, vectors, matrices, rational and exponential functions, trigonometry, sequences, limits, derivatives, integrals, probability and statistics.

**Math V - Calculus.** Coursework in Calculus is intended to provide an overview of the study of limits, the derivative, differentials and the integral with an emphasis on the properties of functions and theorems. The course is an integration of algebraic, trigonometric, exponential and logarithmic functions and an application of the derivative. Students will gain a foundation for a first year college calculus course during their studies. Topics include properties of functions, limits, and the derivative, techniques of integration, the definite integral, and applications of the integral.

**Applied/Keystone Mathematics.** In applied/Keystone mathematics, students will use concepts and skills learned in prior years to prepare for the workplace, college, and community. Individualized learning targeting measured gaps or specific learning goals is the aim of this course. Students are identified for this course based on teacher recommendation. Topics covered may include but are not limited to: Operations with Real Numbers and Expressions, Linear Equations and Inequalities, Functions, Coordinate Geometry, and Data Analysis.

**About Science.**

Science content and the application of science across disciplines is a hallmark of the ECS experience. The science program at ECS uses the Next Generation Science Standards (NGSS) in conjunction with the PA Science Standards to engage in the three dimensions of the NGSS for successful science instruction: content, practices, and crosscutting concepts. Content drives the experience whether it is life science, earth science, physical science, engineering, or a combination of several of these topics. Students use scientific practices, such as asking questions and carrying out investigations, to actively engage in the content. Students act like scientists by taking risks, making mistakes, problem-solving through struggles, and persevering to create evidence-based arguments and solutions. The NGSS approach to science instruction produces inquisitive, critical, and communicative consumers of scientific information by providing authentic experiences that focus on deeper understanding of content as well as application of content. The program continually strives towards teaching the “how” and “why” rather than simply the “what” so students can walk away with the skills they will need to make critical choices and decisions in life.

Each year, students should be able to demonstrate greater capacity for connecting knowledge across, and between, the **physical sciences, life sciences, earth and space sciences**, and **engineering design**. During grades 9 -12, students begin to form deeper
connections between concepts and skills learned in grades 6 -8, such as applying statistics to scientific questions, evaluating limitations of models, and creating algorithms to solve problems.

Upon completion of grades 9 -12, students will have a deeper understanding of:

- Subatomic forces and energy conservation;
- System complexity and the molecular basis of biology;
- How technology measures and predicts chemical reactions and ocean currents and
- How engineering design can help address global issues.

**Science I (Physical science; Earth and Space science).** The understanding of the natural world both biological and non-biological starts with the understanding of matter, how it is constructed, and how it interacts and combines with other matter to make up all of the substances in the universe. Understanding the structure of and interactions between matter and the role energy has in changing or sustaining matter is essential. All life and earth processes have their foundation in matter and how it interacts, is constructed, and is altered. Energy plays a unique role in the understanding of matter. The addition or removal of energy from a system can change the physical motion of matter and in the right conditions, rearrange how matter is configured through the breaking and forming of bonds. Science I seeks to lay a foundation for understanding the complexities of the biological and physical domains by deeply understanding the driving principles that allow matter to exist and function as it does in the universe.

**Science II (Life Science, Physical Science; Earth and Space Science).** Expands upon what was learned in Science I about matter and energy by taking a deeper look into matter and energy in the universe, then on Earth, and finally within organisms. The course then focuses on how organisms and their body systems maintain stability, and finally on the structure of DNA and how an organism’s genetic traits are determined, as well as the environmental influences on the expression of those traits.

**Science III (Physical science; Earth and Space science).** Expands upon what was learned in Science I and II about ecosystems and heredity by taking a deeper look into the evolution of Earth systems and organisms.

**Science IV.** Elective designed based on student choice, need, and major.
About Social Sciences.

Social Sciences courses focus on content, yet continually connect to the context of the ECS mission and values around environmental literacy. Topics and content will be examined through the lens of environment, and build on the experiences developed in the Environmental Literacy and Cultural Literacy classes in K-8.

Social Sciences I: Civics, Governments, and How Humans Organize. Students examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. Students also delve into the various forms of government around the world, and study the frameworks in which humans organize, design policy, and activate change.

Social Sciences II: World Culture and Social Anthropology. Using the International Baccalaureate model, this course promotes students’ awareness of underlying patterns and causes of social relationships and systems, preconceptions and assumptions within the social environment, and the use of ethnographic data in creating models, drawing inferences, and making comparisons. Students will review of geographical skills and economic principles and take a multi-disciplinary approach that stresses geography, history, economics, and government to explore Africa, the Middle East, Asia, and Latin America. Students will develop critical thinking skills through the analysis of primary documents and articles relating to contemporary and global issues and their impact.

Social Sciences III: American Cultures. This 11th grade course focuses on American domestic and foreign issues, from the end of the Civil War to the Present, with attention to various perspectives and voices outside of the traditional narrative of history. Various approaches are used to stress political and economic developments, social and cultural growth, military conflicts, and America’s changes and shifts during this period. Students will relate current context and events of today to the structures and systems of the past.

Social Sciences IIII. Elective designed based on student choice, need, and major.
Lab Courses

The learning lab is the key time of day when students and teachers examine a questions, delve into content, practice skills, and engage in active, authentic work to build understanding and learning. Labs are both “knowing” and “doing” focused, and designed to prepare and enhance the skills needed for thinking critically about topics and employing action in the world. Labs are designed to delve into the content, application, and thinking related to a student-chosen “major.” Upon completion of the 9th grade year, students choose a strand to “major” in as their focus in their high school experience.

Lab Course 9
During the 9th grade year, labs are guided explorations into each major, with practice projects created to demonstrate understanding of each major. First year labs are designed to delve into the content strands, application, and thinking related to a student-chosen “major” in the sustainability sector.

Lab Course 10 and 11
During the lab courses in the sophomore and junior years, students work directly on content and application related to their declared major. Courses are facilitated by educators in each field and partners with expertise in the strand/content. Projects are designed to build readiness for career, college, or community independence. Students should expect to work both collaboratively and independently in a project-based learning (PBL) environment.

Lab Options 12
During the senior year, students may elect to complete a final lab onsite or one of the following:

- Work Release
- Dual Enrollment/University Courses
- ECS Lab Course 12 or Independent Study
- Green Internship/Apprenticeship/Placement
**Studio Courses**

Studios are intense focus sessions that enhance and deepen student’s ability and skills to use communication skills, planning/organizing techniques, and technology applications effectively and through various means. Studios provide the time for students to learn and to practice the skills and techniques needed to build readiness for career, college, or community independence.

**Studio 9**

Students will learn the power of documenting their “learning story” over the course of their academic career at ECS. Students will investigate how humans over time have documented learning, and how it has created a wealth of information for both the individual as well as the world. Finally, students will begin to look at formats and systems that are adaptable and manageable for documenting their own story. Students will delve into the skills, equipment, routines, and expectations for consistently creating, updating, and maintaining accountable progress. Throughout the course, students review work/artifacts of other courses, add and edit, and build skills around digital portfolio platforms.

**Studio 10**

Students will learn how things –products, ideas, anything new or in need of revision –go through a series of questions, actions, and activities to get at the root of the problem or complexity. Using Human Centered Design philosophy, students will learn the techniques of guiding a question or problem through a series of techniques to get a clearer picture of how to move forward. Students practice using Human Centered Design techniques through a series of simulation tasks. The tasks span content areas, and allow students to practice using different ways of looking, understanding, and making. Throughout the course, students will determine methods for gathering information and organizing if for analysis and communication to an audience.

**Studio 11**

Students will spend the first part of the course identifying the focus, process, and intended product of their Senior Project. The second part of this course will be in setting the groundwork, establishing the partners and stakeholders, and practicing techniques needed for successful completion of the student-designed project. Intended to be a workshop, Studio 11 is the practice and planning space for students to fully prepare (both skills and organization) for the Senior Project.

**Studio 12**

Students can elect to take time during their elective schedule to work on the components of their Senior Project. Students that require additional support for Senior
Project completion may also elect to take this course for scaffolding and feedback. This course can be elected for fall or spring semester.

**Electives**

**Art**
Students will have the opportunity to engage in an art-based elective each year from 9th-12th grade. At ECS, art is used to connect students with nature and community in a way that enhances our understanding and appreciation of both. Students explore different forms of visual art and notable artists who used the natural world as an inspiration for their work. Students will experiment with different materials, techniques, and styles to discover their creative strengths.

**Music**
Students will have the opportunity to engage in a music-based elective each year from 9th-12th grade. ECS believes that the opportunity to engage in musical experiences is crucial for the development of the whole child. Through playing, creating, singing and performing, students develop confidence, communication, thinking and creative skills.

**Wellness Education: Health, Fitness, and Well-Being**
Focus is largely on the growth and development of students through the medium of total body activities. The principle objectives include: 1. The development of motor skills and physical fitness 2. The development of desirable social attitudes and emotional traits 3. The development of an appreciation for a wide variety of physical activities that would result in continued participation for the enjoyment of leisure time activities. This course is required of all students during 9th, 10th, 11th, and 12th grades.

**Spanish (I,II & III)**
Spanish courses follow the World-Readiness Standards for Learning Languages. The standards are organized around the “5 C’s” of learning languages; communication, cultures, connections, comparisons and communities. Students progress through coursework each year beginning with the required Spanish 1 course in 9th grade. Spanish I provides the opportunity to become proficient at the novice level in all skill areas: speaking, listening, reading, and writing. Students acquire skills that are reinforced through practice, conversation, games and authentic tasks. Additional courses (II and III) are offered during a student’s elective block each year.

**Additional Electives**
Additional electives are offered each year based on local partnerships, student engagement and opportunities for unique art experiences in the community. Any additional elective course descriptions offered for the year will be made available by May of the prior year.
## ECHS Sample Schedule

### 9th Grade

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Course Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:20 - 8:50</td>
<td>Arrival</td>
<td></td>
</tr>
<tr>
<td>8:50 - 9:55</td>
<td>Block 1/Homebase</td>
<td>Math or ELA</td>
</tr>
<tr>
<td>9:58 - 10:58</td>
<td>Block 2</td>
<td>Math of ELA</td>
</tr>
<tr>
<td>11:01 - 12:00</td>
<td>Block 3</td>
<td>Electives: Music, Thinking Lab, PE or Health</td>
</tr>
<tr>
<td>12:03 - 12:58</td>
<td>Block 4</td>
<td>Studio and Spanish Rotation</td>
</tr>
<tr>
<td>1:00 - 1:30</td>
<td>Block 5</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:35 - 2:35</td>
<td>Block 6</td>
<td>Science or Social Sciences</td>
</tr>
<tr>
<td>2:38 - 3:30</td>
<td>Block 7</td>
<td>Science or Social Sciences</td>
</tr>
<tr>
<td>3:30 - 3:50</td>
<td>Homebase/Office Hours</td>
<td></td>
</tr>
<tr>
<td>3:50 - 4:10</td>
<td>Dismissal</td>
<td></td>
</tr>
</tbody>
</table>

### 10th - 12th

<table>
<thead>
<tr>
<th>Time</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30-7:50</td>
<td>Arrival/Breakfast Teacher Office Hours Open Gym/Morning Meditation</td>
<td>Arrival/Breakfast Teacher Office Hours Open Gym/Morning Meditation</td>
<td>Arrival/Breakfast Teacher Office Hours Open Gym/Morning Meditation</td>
</tr>
<tr>
<td>7:55 - 8:40</td>
<td>Block 1</td>
<td>Block 1</td>
<td>Electives/Open Gym</td>
</tr>
<tr>
<td>8:43 - 9:28</td>
<td>Block 2</td>
<td>Block 2</td>
<td>Block 1</td>
</tr>
<tr>
<td>9:31 - 10:16</td>
<td>Block 3</td>
<td>Block 3</td>
<td>Block 2</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Time</th>
<th>Block 4</th>
<th>Block 4</th>
<th>Block 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:18 - 11:03</td>
<td>Block 4</td>
<td>Block 4</td>
<td>Block 3</td>
</tr>
<tr>
<td>11:05 - 1:35</td>
<td>Electives 11:05 - 12:00</td>
<td>Studio 11:05 - 12:00</td>
<td>Lab 11:05 - 12:35</td>
</tr>
<tr>
<td></td>
<td>Lunch 12:05 - 12:30</td>
<td>Electives 12:03 - 12:58</td>
<td>Lunch 12:35 - 1:00</td>
</tr>
<tr>
<td></td>
<td>Studio 12:35 - 1:35</td>
<td>Lunch 1:05 - 1:30</td>
<td>Lab/Work Release/Internship/Dual Enrollment Courses/Apprenticeship</td>
</tr>
<tr>
<td>1:35 - 3:20</td>
<td>Lab</td>
<td>Lab</td>
<td>1:00 - 3:30</td>
</tr>
<tr>
<td>3:20 - 3:30</td>
<td>Teacher Office Hours/Dismissal</td>
<td>Teacher Office Hours/Dismissal</td>
<td>Teacher Office Hours/Dismissal</td>
</tr>
</tbody>
</table>
