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Message from the Principal

Dear Students:

Orlando Science Schools are committed to supporting you during your educational journey. This Curriculum Guide is an exceptional resource for viewing the variety of courses and programs offered at your campus. Please review the content carefully, discuss the options with your parent(s)/guardian(s), and do not hesitate to ask questions of your school counselor and curriculum coordinator.

The courses you select should not only help you along your path to graduation but also aid in the development your talents and skills. We do not just want you to succeed – we want you to excel!

An excellent education is at your disposal here and our staff is dedicated to guiding you as you make decisions regarding high school and beyond. Feel free to reach out to the Guidance Department at any time for additional resources regarding specific colleges, scholarships, and careers available upon graduation.

We hope you are excited about this upcoming school year and look forward to helping you reach your goals!

Sincerely,

Dr. Yalcin Akin
Executive Director/Principal

Phone: (407) 253-7304 Fax: (407) 253-7305 www.Orlandoscience.org

Go Orcas, Strive for Excellence!





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Twitter: @OrlandoSciMH

You Tube

YouTube: #orlandosciencesch

General Information

Mission Statement

"The mission of Orlando Science Middle/High Charter School is to provide students with a well-rounded education with special emphasis on Science, Technology, Engineering, Mathematics (STEM) and Reading in the light of research based, proven and innovative instructional methods in a stimulating environment."

School and Campus Info

Lynx Campus

2427 Lynx Ln. Orlando, FL 32804

Phone: 407 253 7304 Fax: 407 253 7305

Email: info@orlandoscience.org





High School Technology Campus

2600 Technology Drive

Orlando, FL 32804

Phone: 407 299 6595

Fax: 407 253 7305

Email: info@orlandoscience.org

Graduation Information

Students Entering Grade Nine in the 2020-2021 School Year

What are the diploma options?

Students must successfully complete one of the following diploma options:

- 24-credit standard diploma
- 18-credit Academically Challenging Curriculum to Enhance Learning (ACCEL) option
- Advanced International Certificate of Education (AICE) curriculum
- International Baccalaureate (IB) Diploma curriculum

What are the state assessment requirements?

Students must pass the following statewide assessments:

- Grade 10 ELA (or ACT/SAT concordant score)
- Algebra I end-of-course (EOC) or a comparative score on the Postsecondary Education Readiness Test (P.E.R.T.)

Students must participate in the EOC assessments and the results constitute 30 percent of the final course grade. These assessments are in the following subjects:

- Algebra I*- Geometry- Biology I- U.S. History
- Algebra II (if enrolled)
- * Special Note: 30% not applicable if not enrolled in the course but passed the EOC.

What is the credit acceleration program (CAP)?

This program allows a student to earn high school credit if the student passes an advanced placement (AP) Examination, a College Level Examination Program (CLEP) or a statewide course assessment without enrollment in the course. The courses include the following subjects:

- Algebra I
- Geometry
- U.S. History
- Biology I
- Algebra II



What are the graduation requirements for students with disabilities?

Two options are available only to students with disabilities. Both require the 24 credits listed in the table and both allow students to substitute a career and technical (CTE) course with related content for one credit in ELA IV, mathematics, science and social studies (excluding Algebra I, Geometry, Biology I and U.S. History).

- Students with significant cognitive disabilities may earn credits via access courses and be assessed via an alternate assessment.
- Students who choose the academic and employment option must earn at least .5 credit via paid employment.

Students Entering Nine Grade in the 2021-22 School Year graduation requirements will be announced by FLDOE.



What are the requirements for the 24-credit standard diploma option?

4 Credits English Language Arts (ELA)

- ELA I, II III, IV
- ELA honors, Advanced Placement (AP), Advanced International Certificate of Education (AICE), International Baccalaureate (IB) and dual enrollment courses may satisfy this requirement

4 Credits Mathematics

- One of which must be Algebra I and one of which must be Geometry
- Industry certifications that lead to college credit may substitute for up to two mathematics credits (except for Algebra I and Geometry)

3 Credits Science

- One of which must be Biology I, two of which must be equally rigorous science courses
- Two of the three required credits must have a laboratory component
- An industry certification that leads to college credit substitutes for up to one science credit (except for Biology I)
- An identified rigorous Computer Science course with a related industry certification substitutes for up to one science credit (except for Biology I)

3 Credits Social Studies

- 1 credit in World History
- 1 credit in U.S. History
- .5 credit in U.S. Government
- .5 credit in Economics with Financial Literacy
- 1 Credit Fine and Performing Arts, Speech and Debate, or Practical Arts*

1 Credit Physical Education*

- -To include the integration of health
- *Eligible courses and eligible course substitutions are specified in the Florida Course Code Directory at http://www.fldoe.org/articulation/CCD.

8 Elective Credits

1 Online Course

Students must earn a 2.0 grade point average on a 4.0 scale.

What are the requirements for standard diploma designations?

What are the public postsecondary options?

Scholar Diploma Designation	State University System
In addition to meeting the 24-credit standard high school diploma requirements, a student must - Earn 1 credit in Algebra II (must pass EOC); - Pass the Geometry EOC; - Earn 1 credit in statistics or an equally rigorous mathematics course; - Pass the Biology I EOC; - Earn 1 credit in chemistry or physics; - Earn 1 credit in a course equally rigorous to chemistry or physics; - Pass the U.S. History EOC; - Earn 2 credits in the same world language; and - Earn at least 1 credit in AP, IB, AICE or a dual enrollment course. A student is exempt from the Biology I or U.S. History assessment if the student is enrolled in an AP, IB or AICE Biology I or U.S. History course and the student - Takes the respective AP, IB or AICE assessment; and - Earns the minimum score to earn college credit.	Admission into Florida's public universities is competitive. Prospective students should complete a rigorous curriculum in high school and apply to more than one university to increase their chance for acceptance. To qualify to enter one of Florida's public universities, a first-time-in-college student must meet the following minimum requirements: - High school graduation with a standard diploma - Admission test scores - 16 Credits of approved college preparatory academic courses - 4 English (3 with substantial writing) - 4 Mathematics (Algebra I level and above) - 3 Natural Science (2 with substantial lab) - 3 Social Science - 2 World Language (sequential, in the same language) - 2 Approved electives http://www.flbog.edu/forstudents/planning
Meet the standard high school diploma requirements. - Attain one or more industry certifications from the list established (per section 1003.492, Florida Statutes).	The Florida College System The 28 state colleges offer career-related certificates and two-year associate degrees that prepare students to transfer to a bachelor's degree program or to enter jobs requiring specific skills. Many also offer baccalaureate degrees in high-demand fields. Florida College System institutions have an open door policy. This means that students, who have earned a standard high school diploma, have earned a high school equivalency diploma or have demonstrated success in postsecondary coursework will be admitted to an associate degree program. http://www.fldoe.org/schools/higher-ed/fl-college-system/index.stml
Carper and To	echnical Centers

Career and Technical Centers

Florida also offers students 46 accredited career and technical centers throughout the state, which provide the education and certification necessary to work in a particular career or technical field. Programs are flexible for students and provide industry-specific education and training for a wide variety of occupations. Career and Technical Directors:

http://data.fldoe.org/workforce/contacts/default.cfm?action=showList&ListID=8

Can a student who selects the 24-credit program graduate early?

Yes, a student who completes all the 24-credit program requirements for a standard diploma may graduate in fewer than eight semesters.

What is the distinction between the 18-credit ACCEL option and the 24-credit option?

3 elective credits instead of 8; Physical Education is not required; Online course is not required. All other graduation requirements for a 24-credit standard diploma must be met (per s. 1003.4282(3)(a)-(e), F.S.).

Where is information on Bright Futures Scholarships located?

The Florida Bright Futures Scholarship Program rewards students for their academic achievements during high school by providing funding to attend a postsecondary institution in Florida. For more information, visit http://www.floridastudentfinancialaid.org/SSFAD/bf/.

Where is information on financial aid located?

The Office of Student Financial Assistance State Programs administers a variety of postsecondary educational state funded grants and scholarships. To learn more, visit http://www.floridastudentfinancialaid.org/.

2021-22 SCHOOL CALENDAR

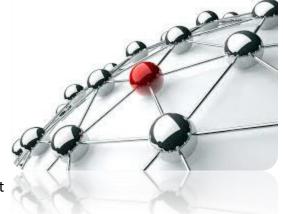
Weekday(s)	Date(s)	Event
Monday-Monday	August 2-9	Pre-Planning
		August 4 Professional Development Day
Tuesday	August 10	First Day of School
Monday	September 6	Labor Day Holiday
Thursday	October 7	End of First Marking Period
Friday	October 8	Teacher Workday/Student Holiday
Monday	October 11	Begin Second Marking Period
Friday	October 29	Teacher Professional Day/Student Holiday Teacher Non-Workday
Monday-Friday	November 22-26	Thanksgiving Break
Friday	December 17	End of Second Marking Period
Two Weeks	December 20-31	Winter Break
Monday	January 3	Teacher Workday/Student Holiday
Tuesday	January 4	Begin Third Marking Period
		Begin Second Semester
Monday	January 17	Martin Luther King, Jr. Holiday (Schools and District Offices Closed)
Monday	February 21	Presidents' Day Holiday (Schools Closed/District Offices Open)
Thursday	March 10	End of Third Marking Period
Friday	March 11	Teacher Workday/Student Holiday
Monday-Friday	March 14-18	Spring Break (Schools Closed/District Offices Open)
Monday	March 21	Begin Fourth Marking Period
Wednesday	May 25	End of Fourth Marking Period/Last Day of School
Thursday- Friday	May 26-27	Post-Planning
Monday	May 30	Memorial Day Holiday (Schools and District Offices Closed)

OSS Student Progress Monitoring System (OSS Connect):

Orlando Science Schools use a web-based student progress monitoring system called OSS Connect (ossconnect.orlandoscience.org). Students and parents have access to the website with a pre-generated username and password. OSS Connect provides the most recent information regarding student progress and a variety of other resources. Parents and students may find the following information on OSS Connect:



- Recent Student Overall Course Grades
- Student Commendations and Behavioral Progress
- Detailed Course Resources, Course Syllabus, Chapter Resources
- Homework and Classwork Soft Copies, Uploaded Lessons of the Day
- Long Term Project Timelines and Resource, such as Science Fairs and History Fairs
- Assignment Calendars for all Courses
- Weekly Student Report E-mails
- Staff Directory
- Orlando Science Event Calendar
- Online Academic Resource Access, such as
 - Accelerated Reader (AR)
 - o Studyisland
 - Naviance
 - o Albert IO- AP Prep.
 - Web Assign-AP Prep.
 - o Math XL
 - Khan Academy
 - o Project Lead the Way (PLTW) Canvas Account
 - E-Books
 - AP Center College Board
 - SAT Resources



You may go to our website <u>www.orlandoscience.org</u> and click on the OSS Connect tab to login to the site. If you lose your user name and/or password, you may contact the front office at phone extension 3000.



Naviance

Naviance, a web-based resource designed especially for students and parents. It is a comprehensive website that you can use to help make decisions about courses, college, career and success planning.

Naviance provides a powerful link between school and home and up-to-date information that's specific to our school. It also lets us share information with you about up-coming meetings, news, events, college visits, scholarships/financial aid, as well as other web resources for college and career information.

We have created an account for you on Naviance to help you plan for your future.

Sign on today! The website address is: https://student.naviance.com/ossmhcs

User Name: Your OSS Connect username

Password: Your OSS Connect password

Explore career possibilities and match them to potential college majors

- § Personality, career, and individual learning style assessments
- § Research colleges that will match your unique set of traits and preferences
- § College and career readiness activities
- § Explore scholarship opportunities
- § Access your academic planner; define and document goals

Orlando Science Schools were among the first schools to implement Naviance in the area. We hope that you find this tool very useful.



Florida K-12 students rely on Naviance



of the largest K-12 districts in Florida work with Naviance



Florida institutions in the Naviance eDocs Transcript Network

OCPS Grading Policies

A student's grades should reflect his or her academic achievement. Every student will have a suitable opportunity to demonstrate academic achievement. A natural consequence of an absence is missing the opportunity to participate in classroom activities. This lack of participation may reflect in a student's grade.

• Un-weighted Grading Scale

The grading system and interpretation of letter grades will be as prescribed by state statute (s.1003.437(1-5), F.S.).

• Weighted Grading Scale

A weighted grading scale will be used to compute a grade point average when determining rank in class and will also be used to determine eligibility for an honors diploma per state statute (s.1003.437,F.S.). Grade values for the weighted scale are as follows:

• Courses Higher than Honors Level

Courses higher than honors level: Advanced Placement, International Baccalaureate, Advanced International Certificate of Education and college or postsecondary technical Dual Enrollment 52 courses, will be weighted as follows: For students entering Grade 9 in the 2006-2007 school year, dual enrollment courses via postsecondary technical programs will be given the same weight as the courses described in this paragraph. Alternative grade calculation or weighting systems that discriminate against dual enrollment courses are prohibited. (s. 1007.271(16), F.S)

OCPS Grading Scale

Grade	Percent	AP/VCC	Honors	Regular	Definition
Α	90-100	6	5	4	Outstanding Progress
В	80-89	5	4	3	Above Average Progress
С	70-79	4	3	2	Average Progress
D	60-69	1	1	1	Lowest Acceptable Progress
F	0-59	0	0	0	Failure

Orlando Science Schools Parent Communication

Orlando Science Schools send three types of reports:

✓ Weekly E-mail Report:

The information on this report is not official or final. It only gives a daily snapshot of the students' grade/assignments and may be different from the one on the Parent Connect due to the updates made any time of the day. Parents may check the more detailed information by clicking on any of the course links in the report for the most up to date grade/assignment reports.

✓ Progress Report:

This report is sent home in the middle of each quarter. The report will give the overall detailed progress of the students in the first half of the quarter.

✓ Report Card:

This report is an official quarter report. Student grades will be formally reported at the end of each quarter. Behavioral, academic progress and attendance will be reflected on the report card. Two quarter grades make up a semester, and two semester grades are averaged together to determine a final grade in a one credit course. Numerical grades are automatically converted to letter grades using our computer grade book software.

Orlando Science Schools High School Programs/Tracks



Orlando Science Schools offer different types of special programs to its students. Students will find the most exciting and academically challenging programs in the 2021-2022 Academic Year. The programs offer students unique opportunities for in-depth experiences and study in specific areas of interest. Each Special Program emphasizes a specialized theme. The programs set high expectations for all students to improve their academic achievements, and prepare for college careers of the 21st Century. In addition, Special Programs offer students hands-on and real-world problem-solving approaches to learning.

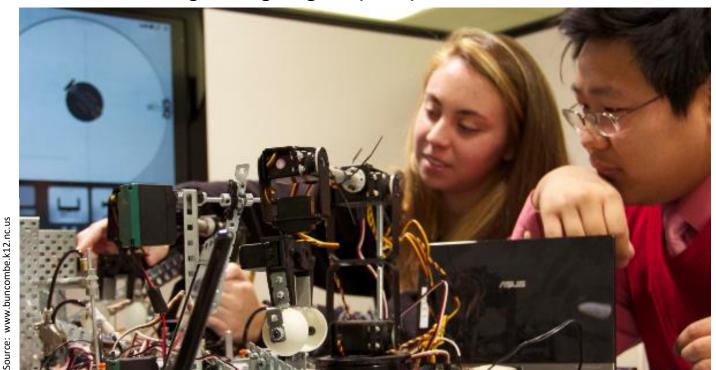
Orlando Science is proud to offer Project Lead the Way (PLTW) to our students and give them an advantage over their peers in college and their careers. PLTW has a long history of successfully engaging students in STEM subjects, and we believe our community will also see the benefits of PLTW as these students turn into the next generation of highly skilled employees for our local businesses.

Orlando Science offers the below special programs to its students.

- ✓ PLTW Engineering Program
- ✓ PLTW Biomedical Sciences Program
- ✓ Cybersecurity Program
- ✓ Legal and Business Studies Program
- ✓ Advanced Placement Academy
- ✓ Dual Enrollment Program

The details and course progression of each program is available in this curriculum guide. While all students are encouraged to apply, students must have a strong interest in academic challenges. Students should be willing to set up structured study time and be motivated in order to be successful in these programs.

Orlando Science Engineering Program (OSEP)



Orlando Science offers the Engineering Program (OSEP) for eligible students. The OSEP will cover the *Project Lead the Way* (PLTW) Pathway to Engineering (PTE) program sequence of courses, which follows a proven hands-on, real-world problem-solving approach to learning.

In PLTW Engineering, students engage in open-ended problem solving, learn and apply the engineering design process, acquire strong teamwork and communication proficiency, develop organizational skills, and use the same industry-leading technology and software as are used in the world's top companies.

The new face of engineering requires verbal and written communication skills, in addition to an in-depth understanding of complex mathematics and science concepts. Lessons engage students by using teamwork, problem solving, and the day-to-day practice of the scientific method, which is practiced by engineers every day.

Students investigate topics such as aerodynamics and astronautics, biological engineering and sustainability, and digital electronics and circuit design, which give them an opportunity to learn about different engineering disciplines before beginning post-secondary education or careers.

Orlando Science offers four courses throughout the high school experience:

- ✓ IED-Introduction to Engineering Design
- ✓ POE- Principles of Engineering
- ✓ AE- Aerospace Engineering
- ✓ Computer Integrated Manufacturing
- ✓ Capstone Engineering Design

Students accepted into OSEP will refer to the following guidelines and select courses that best support individual educational goals. Successful completion of this program enables students to be eligible for various scholarships in the state of Florida.

Requirements of OSEP

Students must meet the following requirements and adhere to high standards in both academics and behavior to be admitted to and continue in the OSEP.

- √ 90% Middle School Overall Course GPA
- ✓ Maintain a 4.0 weighted High School GPA in each year with no grade below a C in engineering courses
- ✓ Complete a minimum of 3 engineering courses
- ✓ Have a good conduct record
- ✓ Complete OSEP Application Form
- \checkmark Complete one of the courses below in 8th grade.

Math	Science	Electives	
Algebra I Honors	Chemistry Honors or	At Least one	
Geometry Honors	Advanced Science	Academic Elective	

	Orlando Science PLTW Engineering Program (OSEP)							
Gr	English	Math	Science	Social Studies	World Lang.	Engineering (PLTW)	Elective	
9	English -I Honors	Geometry Honors Algebra II Honors	Biology Hon. Chemistry Hon. AP Chemistry (Physical Sci. Hon)	AP World Hist. World History Honors	Spanish- I/II Turkish- I/II	Intro to Engineering Design (IED)	HOPE Elective Course	
10	English-II Honors	Algebra II Honors Pre-Calculus with Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History US History Honors	Spanish- II/III Turkish- II/III	Principles of Engineering Design (POE)	Elective Course	
11	AP English Language and Composition Dual Enrollment	Pre-Calculus with Trigonometry AP Calculus AB Dual Enrollment	Physics Hon. AP Biology AP Physics 1 AP Physics C AP Chemistry Dual Enrollment	AP Government AP MacroEcon. US Government Honors Economics Honors	Spanish- III Honors Turkish- III Honors	Aerospace Engineering Computer Integrated Manufacturing	Elective Course	
12	AP English Literature and Composition Dual Enrollment	AP Calculus AB AP Calculus BC AP Statistics Dual Enrollment	AP Biology AP Environment Sci. Dual Enrollment	AP Human Geography AP European History AP Psychology Dual Enrollment	Elective Course	Capstone Engineering Design and Development	Elective Course	

Orlando Science PLTW-Engineering Curriculum



In Orlando Science PLTW Engineering, students engage in open-ended problem solving, learn and apply the engineering design process, and use the same industry-leading technology and software as are used in the world's top companies. Students are immersed in design as they investigate topics such as sustainability, mechatronics, forces, structures, aerodynamics, digital electronics and circuit design, manufacturing, and the environment, which gives them an opportunity to learn about different engineering disciplines before beginning post-secondary education or careers.

Orlando Science offers a minimum of four courses: Introduction to Engineering Design, Principles of Engineering, and any specialization course such as Aerospace Engineering, Civil Engineering and Architecture and Digital Electronics or Capstone Course - Engineering Design and Development.

Introduction to Engineering Design

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software and an engineering notebook to document their work.

Principles of Engineering

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Aerospace Engineering

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software.

Computer Integrated Manufacturing

Computer Integrated Manufacturing is one of the specialization courses in the PLTW Engineering program. The course deepens the skills and knowledge of an engineering student within the context of efficiently

creating the products all around us. Students build upon their Computer Aided Design (CAD) experience through the use of Computer Aided Manufacturing (CAM) software. CAM transforms a digital design into a program that a Computer

Numerical Controlled (CNC) mill uses to transform a block of raw material into a product designed by a student. Students learn and apply concepts related to integrating robotic systems such as



Automated Guided Vehicles (AGV) and robotic arms into manufacturing systems.

Throughout the course students learn about manufacturing processes and systems. This course culminates with a capstone project where students design, build, program, and present a manufacturing system model capable of creating a product.

Capstone Course - Engineering Design and Development

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development (EDD) as they identify an issue and then research, design, and test a solution, ultimately resenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career.

PLTW Engineering - Assessment

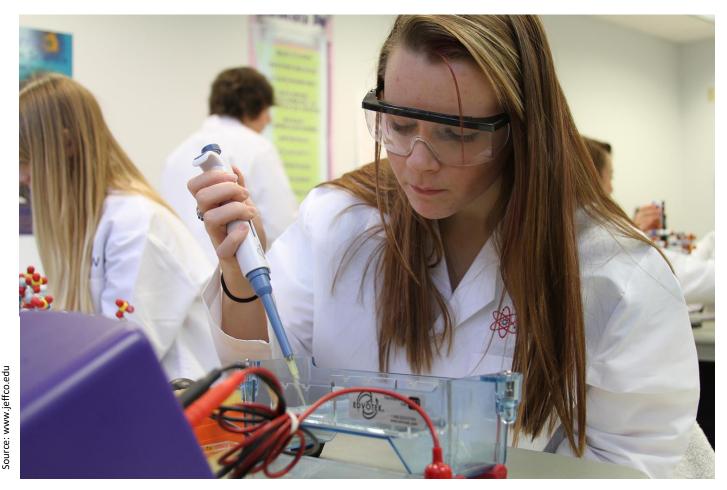
Assessments play an important role in providing meaningful feedback to students, teachers, administrators, and PLTW. Through assessments, students identify what they are doing well and what they need help with, and teachers are able to provide individualized direction and guidance to each student.

• Student-centered Balanced Assessment

PLTW supports a balanced approach to assessment for all programs, integrating both formative and summative assessments. Through a balanced approach, assessment is an ongoing activity. Students demonstrate their knowledge throughout the course by completing activities, projects, and problems using a variety of assessment tools, such as performance rubrics and reflective questioning, to deepen and expand their knowledge and skills.

• Students will be able to earn CAPE Certification if they pass the Autodesk and Microsoft Exam packages at the end of the year.

Orlando Science Biomedical Program (OSBP)



Orlando Science PLTW Biomedical Science introduces students to medicine and human body systems, preparing them for careers in medical and health-related fields. The program is a rigorous and relevant four-course sequence that allows students to play the roles of biomedical professionals as they investigate and study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities like investigating the death of a fictional person or dissecting a sheep's heart, learning content in the context of real-world cases.

They examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of diseases; all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future. Through PLTW Biomedical Science, students often have the opportunity to earn college credit, admissions preferences, or scholarships for completed courses.

Through hands-on activities, such as dissecting a heart, students are able to examine the processes, structures, and interactions of the human body - often playing the role of real-world biomedical professionals as they undergo their examinations. Students also get to explore topics vital to the medical profession such as prevention, diagnosis, and treatment by working collaboratively to investigate and design innovative solutions to the real-world health challenges of the 21st century, such as fighting cancer with nanotechnology or examining how to react to a global pandemic.

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Requirements of OSBP

Students must meet the following requirements and adhere to high standards in both academics and behavior to be admitted to and continue in the OSBP.

- √ 90% Middle School Overall Course GPA
- ✓ Maintain a 4.0 weighted High School GPA in each year with no grade below a C in biomedical courses.
- ✓ Complete a minimum of 3 biomedical courses.
- √ Have a good conduct record
- ✓ Complete OSBP Application Form
- ✓ Complete one of the courses below in 8th grade.

Math	Science	Electives
Algebra I Honors	Chemistry Honors	At Least one
or	or	Academic Elective
Geometry Honors	Advanced Science	

	Orlando Science PLTW Biomedical (OSBP)						
Gr	English	Math	Science	Social Studies	World Lang.	Biomedical (PLTW)	Electives
9	English -I Honors	Geometry Honors Algebra II Honors	Biology Hon. Chemistry Hon. AP Chemistry (Physical Sci.Hon)	AP World Hist. World History Honors	Spanish- I/II Turkish- I/II	Principles of Biomedical Sciences	HOPE Elective Course
10	English-II Honors	Algebra II Honors Pre-Calculus with Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History US History Honors	Spanish- II/III Turkish- II/III	Human Body Systems	Elective Course
11	AP English Language and Composition Dual Enrollment	Pre-Calculus with Trigonometry AP Calculus AB Dual Enrollment	Physics Hon. AP Biology AP Physics - 1 AP Chemistry AP Env. Sci. Dual Enrollment	AP Government AP MacroEcon. US Government Honors Economics Honors	Spanish- III Honors Turkish- III Honors	Medical Interventions	Elective Course
12	AP English Literature and Composition Dual Enrollment	AP Calculus AB AP Calculus BC AP Statistics Dual Enrollment	AP Biology AP Env. Sci. Dual Enrollment	AP Human Geography AP European History AP Psychology Dual Enroll	Elective Course	Biomedical Innovation	Elective Course

Orlando Science PLTW Biomedical Science - Curriculum



The rigorous and relevant four-course PLTW Biomedical Science sequence allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities like investigating the death of a fictional person to learn content in the context of real-world cases. They examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Each course in the Biomedical Science sequence builds on the skills and knowledge students gain in the preceding courses. Schools offer the three PLTW Biomedical Science foundation courses within a period of three academic years from the start of implementation and may also offer the capstone course.

Principles of Biomedical Science

Source: www.pltw.org

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that lead to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life.



Human Body Systems

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®, use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration, and take on the roles of biomedical professionals to solve real-world medical cases.

Medical Interventions

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and

fight infection, screen and evaluate the code in human DNA, evaluate cancer treatment options, and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

Biomedical Innovation

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution.

Orlando Science Cybersecurity Program



The Cybersecurity Program at Orlando Science High School will introduce students to foundational knowledge and skills in computer and network security, security vulnerabilities, attack mechanisms and techniques, intrusion detection and prevention, cryptographic systems, system hardening, risk identification, incidence response, key management, access control, and recovery. Students will be required to complete specialized courses focused on database security, planning and analysis, software, and web security. Hands-on learning will be infused throughout the four years of the program starting with career awareness, career exploration and culminating with an internship during the summer after junior year.

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and cybersecurity-related careers in the Information Technology career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of cybersecurity.

Course Sequence of the Program

- Digital Information Technology
- Computer and Network Security Fundamentals
- Cybersecurity Essentials
- Operational Cybersecurity
- Applied Cybersecurity Applications



Requirements of OSCP

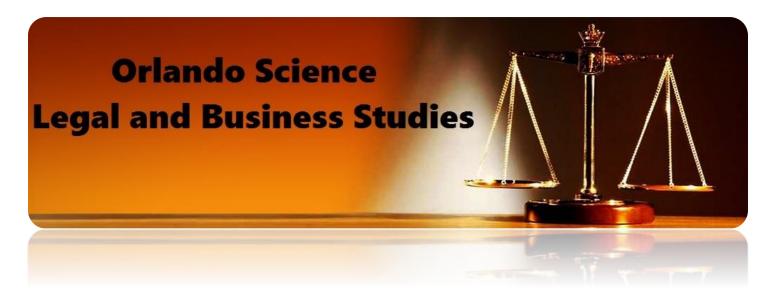
Students must meet the following requirements and adhere to high standards in both academics and behavior to be admitted to and continue in the OSCP.

- √ 90% Middle School Overall Course GPA
- ✓ Maintain a 4.0 weighted High School GPA in each year with no grade below a C in cybersecurity program courses.
- ✓ Complete five of the program courses
- √ Have a good conduct record
- ✓ Complete OSCP Application Form
- ✓ Complete one of the courses below in 8th grade.

Math	Science	Electives
Algebra I Honors	Chemistry Honors	At Least one
or	or	Academic Elective
Geometry Honors	Advanced Science	

	Orlando Science Cybersecurity Program (OSCP)						
Gr	English	Math	Science	Social Studies	World Lang.	Cybersecurity (OSCP)	Electives
9	English -l Honors	Geometry Honors Algebra II Honors	Biology Hon. Chemistry Hon. AP Chemistry (Physical Sci.Hon)	AP World Hist. World History Honors	Spanish- I/II Turkish- I/II	Digital Information Technology (DIT)	HOPE Elective Course
10	English-II Honors	Algebra II Honors Pre-Calculus with Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History US History Honors	Spanish- II/III Turkish- II/III	Computer and Network Security Fundamentals	Elective Course
11	AP English Language and Composition Dual Enrollment	Pre-Calculus with Trigonometry AP Calculus AB Dual Enrollment	Physics Hon. AP Biology AP Physics - 1 AP Chemistry AP Env. Sci. Dual Enrollment	AP Government AP MacroEcon. US Government Honors Economics Honors	Spanish- III Honors Turkish- III Honors	Cybersecurity Essentials Dual Enrollment	Elective Course
12	AP English Literature and Composition Dual Enrollment	AP Calculus AB AP Calculus BC AP Statistics Dual Enrollment	AP Biology AP Env. Sci. Dual Enrollment	AP Human Geography AP European History AP Psychology Dual Enroll	Elective Course	Operational Cybersecurity & Applied Cybersecurity Applications Dual Enroll	Elective Course

Orlando Science Legal and Business Studies



Orlando Science Schools Legal and Business Studies Program provide a broad understanding of the basic principles of law and business. Students have the opportunity to learn diverse civilizations of cultural areas in the United States and around the world.

Legal Studies teaches and fosters critical thinking and analytical skills, while reinforcing a common-sense approach to problem solving. Students will learn the foundations of our legal system and how those foundations continue to shape and guide our society today. Students will learn about some of the most famous and controversial legal cases in history and will have the opportunity to come to their own conclusions about the outcomes of those cases.

Above all, students will develop and hone skills that will continue to serve them well beyond the classroom in an exciting and interactive environment. As the world becomes richly interconnected with the expansion of communication and transportation technologies, students will need powerful tools for understanding the legal and business world.

Requirements of Legal and Business Studies

Students are expected to meet following requirements in order to complete the program.

- √ 90% Middle School Overall Course GPA
- ✓ Maintain a 4.0 weighted High School GPA in each year with no grade below a C in Social Studies AP Courses
- ✓ Have a good conduct record
- ✓ Complete the Legal and Business Studies Application Form
- ✓ Complete a total of four years of one world language
- ✓ Participate in the History Fair
- ✓ Complete 4 Social Studies AP Courses
- ✓ Must complete Research I (Model United Nations) and Debate
- ✓ Must complete the required program courses

	Orlando Science Legal and Business Studies								
Gr.	English	Math	Science	Social Studies	World Lang.	Elective I	Elective II		
9	English -I Honors	Geometry Honors Algebra II Honors	Biology Hon. Chemistry Hon. AP Chemistry (Physical Sci.Hon)	AP World Hist. World History Honors	Spanish- I/II Turkish- I/II	Legal Systems and Concepts	HOPE Elective Course		
10	English-II Honors	Algebra II Honors Pre-Calculus with Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History US History Honors	Spanish- II/III Turkish- II/III	Constitutional Law Honors	Critical Writing/ Debate/ Speech		
11	AP English Language and Composition Dual Enrollment	Pre-Calculus with Trigonometry AP Calculus AB Dual Enrollment	Physics Hon. AP Biology AP Physics - 1 AP Chemistry AP Env. Sci. Dual Enrollment	AP Government AP MacroEcon. US Government Honors Economics Honors	Spanish- III Honors Turkish- III Honors	*Required Dual Enrollment Courses: -BUL 2241 Business Law I - PLA 2800C	AP Research		
12	AP English Literature and Composition Dual Enrollment	AP Calculus AB AP Calculus BC AP Statistics Dual Enrollment	AP Biology AP Env. Sci. Dual Enrollment	AP Human Geography AP European History AP Psychology Dual Enroll	Elective Course	*Required Family Law - PLA 2203 Civil Litigation I - PLA 2223 Civil Litigation II - OST 1335C Business Communications	AP Seminar		

^{*}Orlando Science Legal & Business Studies Students selecting these dual enrollment options could graduate from Orlando Science Schools with 15 college credit hours in Paralegal Studies at Valencia College.



Orlando Science Advanced Placement Academy

Orlando Science Advanced Placement Academy's mission is to connect students to college success and opportunity. OSAP provides rigorous academic coursework in the major subject fields. There are many options in English, social studies, science, world languages, math, and fine arts for students. A student enrolled in an AP course must take the corresponding AP examination. AP courses are recognized for college credit by many universities in the United States and abroad. Students are expected to meet the following requirements in order to be admitted to and complete the program.

Requirements of OSAP

- √ 90% Middle School Overall Course GPA
- ✓ Maintain a 4.0 weighted High School GPA in each year with no grade below a C in AP courses.
- ✓ Complete a minimum of 6 AP classes
- ✓ Participate in all AP exams and receive 3 or higher from at least 3 AP exams.
- ✓ Have a good conduct record
- ✓ Complete OSAP Application Form
- ✓ Complete one of the courses below in 8th grade.

Math	Science	Electives		
Algebra I Honors or Geometry Honors	Chemistry Honors or Advanced Science	At Least one Academic Elective		

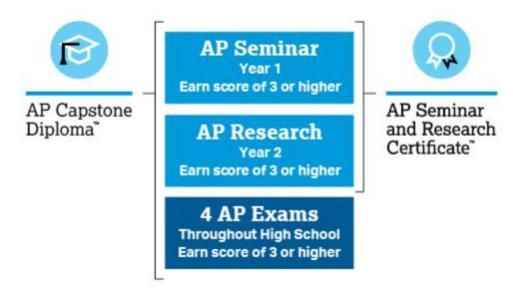
	Orlando Science Advanced Placement Academy (OSAP)						
Gr	English	Math	Science	Social Studies	World Lang.	Elective-I	Elective II
9	English -l Honors	Geometry Honors Algebra II Honors	Chemistry Hon. AP Chemistry	AP World History	Spanish- I/II Turkish- I/II	HOPE	Elective Course
10	English-II Honors	Algebra II Honors Pre-Calculus w/Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History	Spanish- II/III Turkish- II/III	Elective Course	Elective Course
11	AP English Language and Composition	AP Calculus AB AP Calculus BC	AP Biology AP Physics 1 AP Physics C AP Chemistry	AP Government AP Macroecon.	Spanish- III Honors Turkish- III Honors	Elective Course	AP Research
12	AP English Literature and Composition	AP Calculus BC AP Statistics	AP Biology AP Environ. Sci.	AP Psychology AP Human Geo. AP European History	Elective Course	AP Comp Science A	AP Seminar

Orlando Science High School AP Diploma AP Capstone



AP Capstone™ is a diploma program from the College Board. It's based on two yearlong AP courses: AP Seminar and AP Research. Rather than teaching subject-specific content, these courses develop students' skills in research, analysis, evidence-based arguments, collaboration, writing, and presenting. Students who complete the two-year program can earn one of two different AP Capstone awards, which are valued by colleges across the United States and around the world.

Students can earn the AP Capstone Diploma™ or the AP Seminar and Research Certificate™.



Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing receive the AP Capstone Diploma[™]. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams receive the AP Seminar and Research Certificate[™].

The Benefits of AP Capstone:

Participating in AP Capstone can help students:

- Stand out to colleges in the application process.
- Develop key academic skills they'll use in college and beyond.
- Become self-confident, independent thinkers and problem solvers.
- Earn college credit: Many colleges offer credit for qualifying scores.

AP International Diploma

AP International Diploma (APID)

The AP International Diploma (APID) is a globally recognized certificate awarded to students who display exceptional achievement across a variety of disciplines. Available to international students attending secondary schools outside the U.S. and to U.S. high school students applying to universities outside the country, the APID certifies outstanding academic excellence with a global perspective. (But it's not a substitute for a high school diploma.) Students don't need to apply for the APID; it's automatically awarded in the year all eligibility requirements are met. The College Board notifies students by email after the award has been conferred. Students may self-print an APID certificate from AP Scores. School administrators with access to AP Scores for Educators may identify APID students using the AP Scholars Report.

APID Eligibility Requirements

- Students must score a 3 or higher on 5 or more AP Exams.
- Exams taken multiple times only count once—the highest score will be used for award calculation.
- Exams must fulfill the following content areas: Details can be found at the following website: https://apcentral.collegeboard.org/about-ap/awards/international-diploma

AP Scholar Awards

The AP Scholar Awards recognize high school students who have demonstrated exemplary college-level achievement on AP Exams.

Award Levels: The AP Scholar Awards are academic distinctions for students to cite among their credentials on applications and résumés. Students do not receive any monetary award from the College Board.

Award	Criteria			
AP Scholar	Granted to students who receive scores of 3 or higher on three or more AP Exams			
AP Scholar	Granted to students who receive an average score of at least 3.25 on all AP Exams taken, and scores of 3			
with Honor	or higher on four or more of these exams			
AP Scholar	Granted to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or			
with	her on five or more of these exams			
Distinction				
State AP	Granted to the one male and one female student in each U.S. state and the District of Columbia with			
Scholar	scores of 3 or higher on the greatest number of AP Exams, and then the highest average score (at least			
	3.5) on all AP Exams taken			
National AP	Granted to students in the United States who receive an average score of at least 4 on all AP Exams			
Scholar	taken, and scores of 4 or higher on eight or more of these exams			

Orlando Science Dual Enrollment Program



Valencia College's Dual Enrollment program is a cooperative effort between Valencia College and the Orange County School District. Students can earn a college degree in less time and save money. Students have the opportunity to experience the college environment and explore career fields before starting college. Courses taken through the Dual Enrollment program are creditable toward the high school diploma. Dual Enrollment Program is designed for 11th & 12th grade students.

Dual Enrollment Application Procedure:

- ✓ Check your school schedule with your curriculum and college coordinator before applying to Dual Enrollment Program.
- ✓ Obtain a Dual Enrollment Application Form from the Valencia College Dual Enrollment website below:

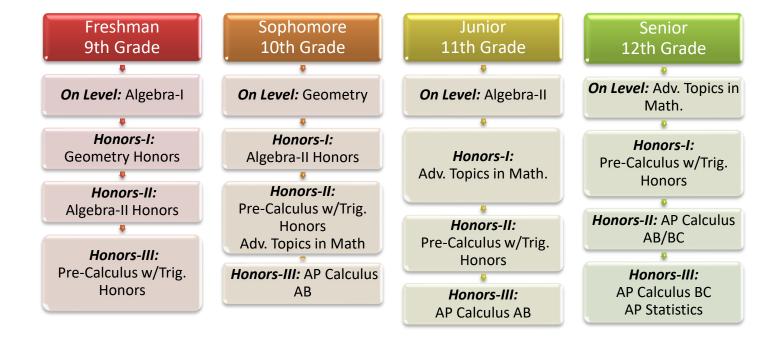
http://valenciacollege.edu/

- ✓ Complete the Dual Enrollment Application. Be sure all of the information and signatures are completed. An incomplete application will delay the application process.
- ✓ Return a copy of the application to your college coordinator

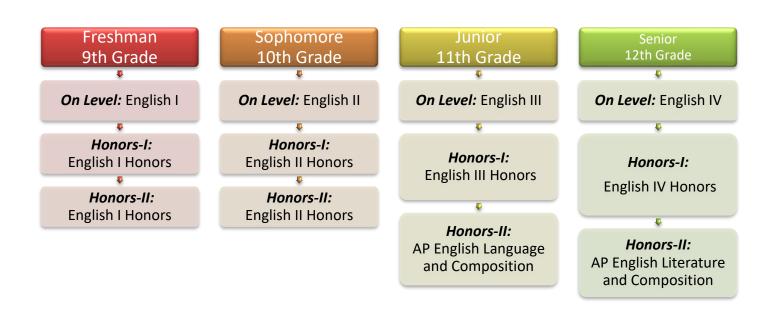
Orlando Science Dual Enrollment Program (OSDP)							
Gr.	English	Math	Science	Social Studies	World Lang.	Electives	Electives
9	English -I Honors	Geometry Honors Algebra II Honors	Biology Hon. Chemistry Hon. AP Chemistry (Physical Sci.Hon)	AP World Hist. World History Honors	Spanish-I/II Turkish-I/II	Elective Course	НОРЕ
10	English-II Honors	Algebra II Honors Pre-Calculus with Trigonometry	Biology Hon. AP Biology AP Chemistry	AP US History US History Honors	Spanish-II/III Turkish-II/III	Elective Course	Elective Course
11	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment
12	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment	Dual Enrollment

ORLANDO SCIENCE SCHOOLS COURSE OFFERINGS

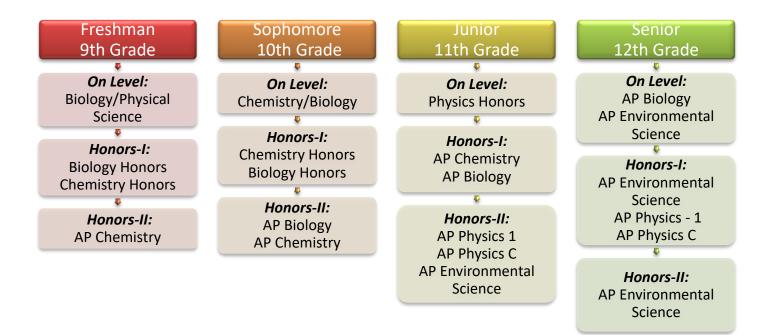
OSS Mathematics Curriculum Pathway



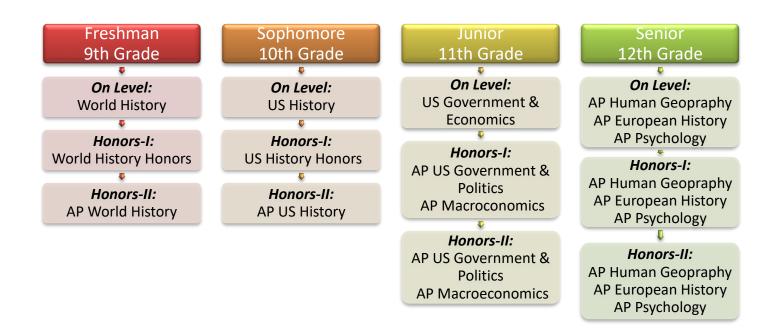
OSS ELA Curriculum Pathway



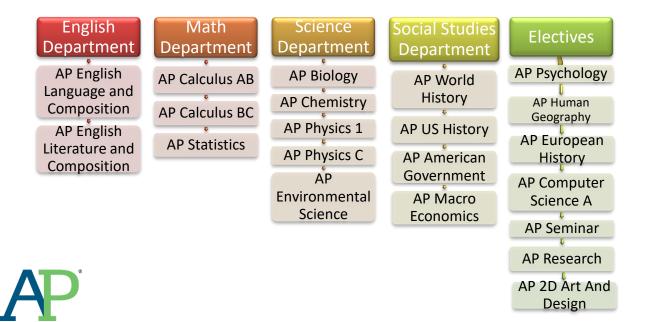
OSS Science Curriculum Pathway



OSS Social Studies Curriculum Pathway



OSS AP Course Offerings



Advanced Placement $\{AP\}$ is an acceleration opportunity administered by the College Board providing college level instruction in high school. Postsecondary credit for an AP course may be awarded to students who earn a minimum of a 3 on a 5 point scale on the corresponding AP exam. OSS is dedicated to ensuring equitable access by giving all willing and academically prepared students the opportunity to participate in AP courses. Only through a commitment to equitable preparation and access can true equity and excellence be achieved. Source: www.ocps.net

What Is AP Capstone?

ADVANCED PLACEMENT

AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

AP Capstone is comprised of two AP courses — **AP Seminar** and **AP Research** — and is designed to complement and enhance the discipline-specific study in other AP courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

Combining Scholarly Practice with Academic Intensity

AP Capstone was developed in response to feedback from higher education. The two AP Capstone courses, with their associated performance tasks, assessments, and application of research methodology, require students to:

Analyze topics through multiple lenses to construct meaning or gain understanding.

Plan and conduct a study or investigation.

Propose solutions to real-world problems.

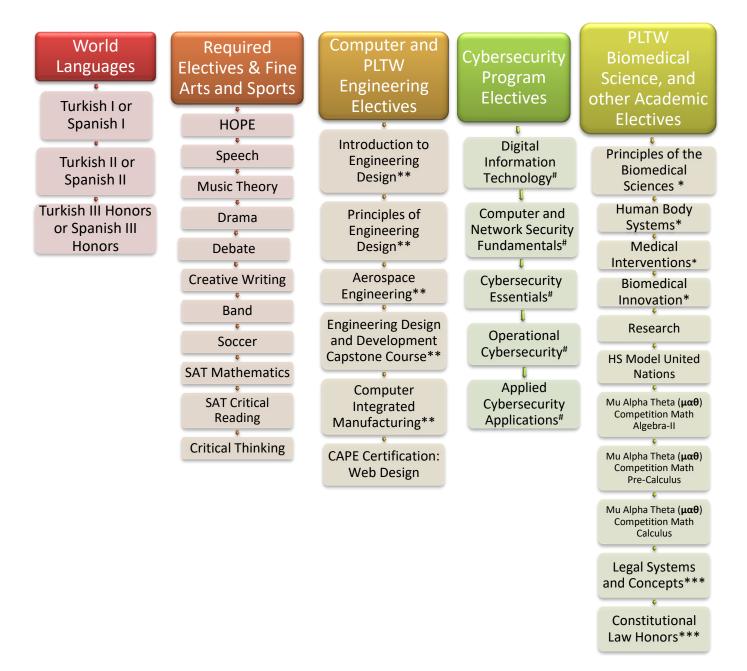
Integrate, synthesize, and make cross-curricular connections

Plan and produce communication in various forms.

Collaborate to solve a problem.

Source: Collegeboard.org

OSS Elective Course Offerings



- * Orlando Science Biomedical Sciences Program Courses
- ** Orlando Science Engineering Program Course
- *** Orlando Science Legal and Business Studies Program Courses
- # Orlando Science Cybersecurity Program Courses

Orlando Science Schools Academic Teams and Student Clubs

Orlando Science Schools offers a multitude of clubs to suit the varied interests of our student body. If you want to do an interesting, fun, and meaningful activity; you may attend a club meeting and get involved. Students also have the opportunity to start their own club with a school advisor based on their interests.

Academics, Sports Clubs and Extra-Curricular Student Activities				
National Honor Society (NHS)	Student Government Association (SGA)			
Mu Alpha Theta Honor Society	Model United Nations High School			
Future Business Leaders of America (FBLA)	FTC and FRC Robotics			
Science Olympiad Team	UCF - Neuroscience Club			
Competition Math – Mu Alpha Theta	Key Club			
Fencing	HOSA- Future Health Professionals Honor Society			
Advanced Band	Web Design/Coding			
Duke TIP	Drama – Theatre Thespian Honor Society			
Writer's Studio	Yearbook			
Soccer Club	Rho Kappa Honors Society			
Martial Arts Club	STEM Honor Society			
International Club	Creative Writing			
Peer Tutoring	Environmental Club – Ecology Club			
Ultimate Frisbee	Poetry/Art Club			
Folk Dance	Scrabble Club			
Paper Marbling Club	Spelling Bee Club			
Chess Club	Fitness Club			
Lab Assistant Club	Odyssey of the Mind			
Flag Football	Oil Painting Club – Face Painting Club			
Mock Trial	SAT Critical Reading Club			
Media Club	History Fair			
Anti-Bullying Club	Anime Club			
SAT Workshop	Newspaper – Orca Tales Club			

Orlando Science High School College Acceptances

Some of the colleges that our graduates got ACCEPTED!































UNIVERSITY OF CALIFORNIA





Olin College of Engineering







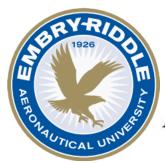


FLORIDA UNIVERSITY

































NYU



UNIVERSITY of WASHINGTON









Academic Teams



Science Olympiad

Orlando Science Schools Science Olympiad program includes both middle and high school team competitions in which our teams of students practice and study to compete against other schools in events related to many scientific disciplines. Science Olympiad events delve into earth science, biology, chemistry, physics, and engineering. These disciplines are spread over 23 events and 15 team members. There are three levels of competition: regional, state, and national. Over 7,400 teams from 50 U.S. states compete each year. Science

Olympiad has been growing stronger for 32 years.

Orlando Science Schools Science Olympiad middle school team has been the Florida State champion for four times. We have represented the State of Florida in National Competitions in Wisconsin, Ohio, Florida and Nebraska.

Robotics Team N.U.T.S.

Team N.U.T.S. Nerds United for
Technological Superiority, is a third year
robotics team. The experienced team
members started on the FIRST Lego League's
2010 Body Forward season. During their first
season they won a Regional Bid at their first
tournament and a Teamwork and Rising Star
Awards. In the 2011 season the team moved
onto the FIRST Tech Challenge competition.
During our first year we won the Think Award
and an invitation to the Florida State
Championship in the first tournament. At the
State Championship N.U.T.S. was selected as
"Rookie of the Year". Some of our team



members wanted to do robotics year round and decided to start a FIRST Robotics Competition team at the school. Our team participated in the 2012 FRC season winning the "Rookie All Star" award at the Orlando Regional and earned a bid to the World Championship.

Competition Math



The main theme of the Competition Math Program is to have fun, to learn a lot of math, and to prepare for state and national level math competitions such as MathCounts, AMC 8, 10, and 12, Mu Alpha Theta, and Math League. Orlando Science Schools Competition Math team for middle and high school students is designed to help them discover their potential in math and related fields. The teams bring many awards from regional and state math competitions to school each year. High School Mu Alpha Theta Honors Society organizes annual Orange County Math Tournament and sponsors several charity and social organizations.

Model United Nations



Model United Nations, also known as Model UN or MUN, is an extra curricular activity in which students typically role play delegates to the United Nations and simulate UN committees. This activity takes place at MUN conferences, which is usually organized by a high school or college MUN club. At the end of most conferences, outstanding delegates in each committee are recognized and given an award certificate; the Best Delegate in each committee, however, receives a gavel. Thousands of middle school, high school, and college students across the country and around the world participate in Model United Nations, which involves substantial

researching, public speaking, debating, and writing skills, as well as critical thinking, teamwork, and leadership abilities. Please visit http://www.orlandoscience.org for more details about extracurricular activities.

Congressional Award

This Award is the United States Congress' award for young Americans. It is non partisan, voluntary, and non competitive. The program is open to all 14 to 23 year olds; young people may register when they turn 13 years and six months old and must complete their activities before their 24th birthday. Participants earn Bronze, Silver and Gold Congressional Award Certificates and Bronze, Silver and Gold Congressional Award Medals. Each level involves setting goals in four program areas: Volunteer Public Service, Personal Development, Physical

Fitness, and Expedition/Exploration. Earning the Award is a fun and interesting way to get more involved in something you already enjoy or something you would like to try for the first time.



Program Overview The Congressional Award is about challenge. It is a fun and interesting way to get more involved in something you already enjoy or something new. To earn the Award, young people between the ages 13 – 23 years old, set goals in ALL four Program Areas: Voluntary Public Service, Personal Development, Physical Fitness, and Expedition/Exploration. The requirements for the six levels of the program increase based on the level for which the young person is applying. Once a young person registers, they are on their way to earn the Gold Medal – everything is cumulative and young people can choose

to submit level by level or apply directly for the Gold Medal. Once approved for the Gold Medal, all lower levels that were earned through the approval will be mailed directly to them.

Program Requirements

Certificate Levels

Minimum Hours by Program Area	Bronze	Silver	Gold
Voluntary Service Hours	30	60	90
Personal Development Hours	15	30	45
Physical Fitness	15	30	45
Expedition or Exploration	1 Day	2 Days	3 Days
Total Minimum Months of Activity Needed (for each of the main three program areas)	N/A	N/A	6 Months

Medal Levels

Minimum Hours by Program Area	Bronze	Silver	Gold
Voluntary Service Hours	100	200	400
Personal Development Hours	50	100	200
Physical Fitness	50	100	200
Expedition or Exploration	1 Night 2 Days	2 Nights 3 Days	4 Nights 5 Days
Total Minimum Months of Activity Needed (for each of the main three program areas)	7 Months	12 Months	24 Months



Florida's K 12 Statewide Assessment Program

Orlando Science Schools administer the following assessments to students every year. OSS academic teams work with parents to increase student achievements for the following assessments.

- Florida Standards Assessments: The Florida Standards Assessments, which measure student success with the Florida Standards, include assessments in English language arts (grades 3 11), mathematics (grades 3 8), and end of course assessments for Algebra 1, Geometry, and Algebra 2.
- FCAT 2.0: The Florida Comprehensive Assessment Test® 2.0, which measures student success with the Next Generation Sunshine State Standards, includes assessments in science (grades 5 and 8) in the 2014 15 school year. (Information on the previously administered FCAT 2.0 assessments is available at FCAT 2.0 Historical on the FLDOE website)
- **EOC Assessments:** The End of Course Assessments are computer based tests designed to measure student achievement of the specified standards for middle and high school level courses in science (Biology 1), social studies (Civics and U.S. History), and mathematics (Algebra 1, Geometry, and Algebra 2).
- National and International Assessments (NAEP, PIRLS, PISA, and TIMSS): National and state
 assessments enable us to know how well students are doing in a variety of subjects at different ages
 and grade levels. International assessments allow us the unique opportunity to benchmark our
 students' performance to the performance of students in other countries. Florida participates in
 several national (NAEP) and international (PIRLS, PISA, TIMSS) criterion referenced surveys.

To learn about the individual K 12 assessments offered in Florida, visit the following website:

http://www.fldoe.org/accountability/assessments/k 12 student assessment/

Useful Websites and Links for Parents and Students

A. College Board:

www.collegeboard.com

Information and registration for AP and SAT tests, and College Planning and Career Search

College Search: www. bigfuture.collegeboard.org

A. Free Application for Federal Student Aid (FAFSA):

https://fafsa.ed.gov/

Office of Federal Student Aid provides grants, loans, and work-study funds for college or technical school, offering more than \$150 billion each year to help millions of students pay for higher education

B. Florida Virtual School:

www.FLVS.net

Online classes offered by Florida Virtual School. All course requests require counselor approval

C. Naviance:

https://connection.naviance.com/family-connection/auth/login/?hsid=ossmhcs

Naviance is a web-portal that provides a unique experience to our students and guides them towards a career path and college readiness. Naviance Succeed is used by more than 4,200 schools and 100,000 educators in 72 countries.

Students and families are provided with access to Family Connection. Using the tools provided, students map their own path starting with assessments to learn more about themselves, progressing to goal setting and career exploration, and then setting a plan to achieve their goals.

D. Common App

www.commonapp.org

The Common Application (informally known as the Common App) is an undergraduate college admission application that applicants may use to apply to any of 517 member colleges and universities in 47 states and the District of Columbia, as well as in Austria, France, Germany, Italy, Switzerland, and United Kingdom.

E. Project Lead the Way

https://my.pltw.org

Project Lead The Way (PLTW) is the nation's leading provider of K-12 STEM programs. The curriculum and high-quality teacher professional development model, combined with an engaged network of educators and corporate and community partners, help students develop the skills necessary to succeed. This year, we are implementing PLTW - Pathway to Engineering and Biomedical Science Academy. Students can access with their login information to PLTW Online Learning Management System and see the instructors assignments and projects and their grades.

F. Albert io

https://www.albert.io/home

Students can learn by doing. There is no better way to learn than to do something yourself. Practice with 50,000+ challenging questions. Albert io has In-depth solutions. No single-sentence explanations there. They make sure to thoroughly explain every question so you can improve as you practice. Student can get contextual performance insights with data on how other students answered. With its trustworthy content you can know that you are getting relevant, impactful practice for your AP courses and Sat Studies.

High School Timeline

Use this timeline to help you make sure you're accomplishing everything you need to accomplish on time.

Ninth Grade

- As soon as you can, meet with your counselor to begin talking about colleges and careers.
- Make sure you are enrolled in the appropriate collegepreparatory courses.
- Get off to a good start with your grades. The grades you earn in ninth grade will be included in your final high school GPA and class ranking.
- In October, take the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) for practice.
 It is strongly re commended to take SAT in 9th grade to experience a real test environment and check your SAT





level. When you receive your scores, schedule an appointment with your college counselor to discuss your score.

- Get involved in extracurricular activities (both school and non-school-sponsored).
- Attend whatever college-preparatory nights are held at your school or by local organizations
- Talk to your parents about planning for college expenses. Continue or begin a savings plan for college.
- Investigate summer enrichment programs.
- Become involved in community service and other volunteer activities.

Tenth Grade



- In October, take the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) for
 practice. When you fill out your test sheet, check the box that releases your name to colleges so you
 can start receiving brochures from them. When you receive your scores, schedule an appointment with
 your college counselor to discuss your score.
- Become familiar with general college entrance requirements.
- Participate in your school's or state's career development activities.
- Discuss your PSAT score with your counselor.
- Read nonfiction books are strongly recommended to increase reading comprehension
- Work on your writing skills—you will need them no matter what you do.
- Keep your grades up so you can have the highest GPA and class rank poss ible.
- If you are interested in attending a military academy, such as West Point or Annapolis, now is the time to start planning and getting information.
- Visit a few more college campuses. Read all of the mail you receive from colleges. You may see something you like.
- Attend the annual Orlando National College Fair (NACAC).
- Consider taking SAT II Subject Tests in the courses you took this year while the material is still fresh in your mind. Some colleges require these tests which are offered in May and June.

Eleventh Grade

- Take the PSAT/NMSQT. In addition to National Merit Scholarships, this is the qualifying test for the National Scholarship Service and National Hispanic Scholar Recognition Program.
- Make a list of colleges that meet your most important criteria (size, location, distance from home, majors, academic rigor, housing, and cost). Weigh each of the factors according to their importance to you.
- Speak to college representatives who visit your high school.



- Collect information about college application procedures, entrance requirements. Begin comparing the schools by the factors that you consider to be most important.
- Begin narrowing down your college choices. Find out if the colleges you are interested in require the SAT I, ACT Assessment, or SAT II Subject Tests for admission.
- Take ACT or SAT to improve your previous scores.
- Meet with your counselor/Assistant Principal to review senior-year course selection and graduation requirements.
- Discuss ACT Assessment/SAT I scores with your counselor. Register to take the ACT Assessment and/or SAT I again if you would like to try to improve your score.
- Discuss the college essay with your English teacher.
- Stay involved with your extracurricular activities. Colleges look for consistency and depth in activities.
- Consider whom you will ask to write your recommendations.
- Inquire about personal interviews at your favorite colleges. Call or write for early summer appointments. Make necessary travel arrangements.
- Apply for a summer job or internship. Be prepared to pay for college applications, financial aid, and testing fees in the fall.
- Visit the campuses of your top two or three college choices.
- After each college interview, send a thank-you letter to the interviewer.
- Practice filling out college applications, and then complete the final application forms or apply online through the web sites of the colleges in which you are interested.
- Volunteer in your community.
- Compose rough drafts of your college essays. Have a teacher read and discuss them with you. Proofread them and prepare final drafts. Proofread your final essays at least three times.

Twelfth Grade

- Continue to take a full course load of collegeprep courses.
- Keep working on your grades. Make sure you have taken the courses necessary to graduate in the spring.
- Continue to participate in extracurricular and volunteer activities. Demonstrate initiative, creativity, commitment, and leadership in each.



- To male students: You must register for selective service on your eighteenth birthday to be eligible for federal and state financial aid.
- Talk to counselors, teachers, and parents about your final college choices.
- Make a calendar showing application deadlines for admission, financial aid, and scholarships.
- Check resource books, computer programs, and your guidance office for information on scholarships and grants. Ask colleges about scholarships for which you may qualify.
- Give recommendation forms to the teachers you have chosen along with stamped, self-addressed envelopes, so your teachers can send them directly to the colleges. Be sure to fill out your name, address, and school name on the top of the form. Talk to your recommendation-writers about your goals and ambitions.
- Verify with your guidance counselor the schools to which transcripts, test scores, and letters are to be sent. Give your counselor any necessary forms at least two weeks before they are due, or according to your counselor's deadline whichever is earlier.
- Register for and take the ACT Assessment, SAT I, or SAT II Subject Tests, as necessary.
- Be sure you have requested (either by mail or online) that your test scores be sent to the colleges of your choice.
- Mail, or send electronically, any college applications for early-decision admission by November 1st or college deadline.
- If possible, visit colleges while classes are in session.
- If you plan to apply for an ROTC scholarship, remember that your application is due by Dec. 1st.
- Print extra copies or make photocopies of every application you send.
- Attend whatever college-preparatory nights are held at your school or by local organizations.
- Send midyear grade reports to colleges. Continue to focus on your schoolwork!
- Fill out the Free Application for Federal Student Aid (FAFSA) and, if necessary, PROFILE®. These forms can be obtained at http://www.fafsa.ed.gov and downloaded to an electronic file, but may not be processed before January 1st. Do not send them before then.
- Mail or send electronically any remaining applications and financial aid forms before winter break.
 Make sure you apply to at least one college that you know you can afford and where you know you will be accepted.
- Follow up to make sure that the colleges have received all application information, including recommendations and test scores.
- Meet with your counselor to verify that all applicable forms are in order and have been sent out to colleges.
- Watch your mail between February 1st and April 1st for acceptance notifications from colleges.
- Watch your mail for notification of financial aid awards between April 1st and May 1st.
- Compare the financial aid packages from the colleges and universities that have accepted you.

- Make your final choice and notify all schools of your intent by May 1st. If possible, do not decide without making at least one campus visit. Send your nonrefundable deposit to your chosen school by May 1st as well. Request that your guidance counselor send a final transcript to the college in June.
- Be sure that you have received a FAFSA acknowledgment.
- If you applied for a Pell Grant (on the FAFSA), you will receive the Student Aid Report (SAR) statement. Review this Pell notice and forward it to the college you plan to attend. Make a copy for your record.
- Complete follow-up paperwork for the college of your choice (scheduling, orientation session, housing arrangements, and other necessary forms).
- If applicable, apply for a Stafford Loan through a lender. Allow eight weeks for processing.
- Receive the orientation schedule from your college.
- Get residence hall assignment from your college.
- Obtain course scheduling and cost information from your college.
- Congratulations! You are about to begin the greatest adventure of your life. Good luck.



Scholarships & Financial Aids



Specific Requirements for the Scholarships

Florida Academic Scholars (FAS) & Florida Medallion Scholars (FMS)

Florida high school students who wish to qualify for the Florida Academic Scholars (FAS) award or the Florida Medallion Scholars (FMS) award must meet the following initial eligibility requirements:

- Graduate high school from a Florida public high school with a standard Florida high school diploma
 (high school graduation requirements), graduate from a registered Florida Department of Education
 private high school, earn a GED, complete a home education program, or graduate from a non-Florida
 high school (OOS);
- Complete the required high school coursework;
- Achieve the required minimum high school grade point average (GPA);
- Achieve the required minimum score on either the ACT® or SAT® college entrance exam; and
- Complete the required number of service hours.

Туре	16 High School Course Credits ¹	High School Weighted Bright Futures GPA	College Entrance Exams (ACT®/SAT®) ²	Service Hours
FAS	4 - English (three must include substantial writing) 4 - Mathematics (at or above the Algebra I level) 3 - Natural Science	3.50	29/1290	100 hours
FMS	(two must have substantial laboratory) 3 - Social Science 2 - World Language (sequential, in same language)	3.00	26/1170	75 hours

The required coursework aligns with the State University System admission requirements found in regulation 6.002. SAT[®] score requirement is applicable to both the former SAT[®] and the redesigned SAT[®] introduced in 2016.

High School Course Credits

For both scholarships, the required coursework aligns with the State University System admission requirements. The world language requirement can be met by demonstrating proficiencies based on scores on Credit-By-Exam Equivalencies or other university approved means. Otherwise, the high school transcript must include a world language "completer" course to show that the world language requirement has been met. Please refer to the Bright Futures Course Table for specific information on which courses count toward FAS/FMS requirements.

High School GPA

Evaluation for Bright Futures includes an unrounded, weighted high school GPA (calculated to two decimal places) in the 16 college-preparatory credits. The following courses are weighted .25 per semester course or .50 per year course in the calculation of the GPA: Advanced Placement (AP), Pre-International Baccalaureate (Pre-IB), International Baccalaureate (IB), Honors, Pre-Advanced International Certificate of Education (Pre-AICE), Advanced International Certificate of Education (AICE) or academic Dual Enrollment. For example, whereas an 'A' equals 4 quality points for an un-weighted course, an 'A' would equal 4.5 quality points for a weighted course. If necessary, students may use two additional credits from courses in the above academic areas, or from AP, IB, or AICE fine arts courses to raise their GPA.

College Entrance Exams

Students must meet the scores set in statute for either the SAT® or ACT®

- The SAT® combined score is the sum of the best Reading (Critical Reading or Evidence-Based Reading and Writing) and Math section scores from any test sitting of the SAT®
- The ACT® composite score is the average of the best section scores across the four subject area sections from any test sitting: English, Math, Reading and Science. Composite scores ending in 0.50 will be rounded up to the next whole number.
- The ACT®/SAT® exams may be taken an unlimited number of times through June 30 of the student's graduation year (or through January 31 for mid-year graduates).
- Students will be evaluated based on official test scores from the Florida Department of Education (FDOE) repository. To ensure OSFA obtains official test scores:
- Ensure demographics on your test registration and high school transcript match; and
- Request your official test scores be sent to one of Florida's 12 state universities, Florida state colleges, or public high schools when registering for the ACT®/SAT®

Service Hours

Students must complete service hours during high school and by high school graduation. Service hours may include, but are not limited to, a business or governmental internship, work for a nonprofit community service organization, or activities on behalf of a candidate for public office. Except for credit earned through service-learning courses, the student may not receive remuneration or academic credit for the service work performed. The hours must be documented in writing, and signed by the student, the student's parent or guardian, and a representative of the organization. Each district school board and the administrators of a nonpublic school must establish approved activities and the process for documentation of service hours. The student must identify a social or civic issue or professional area, develop a plan for personal involvement in addressing the issue or learning about the area, and through papers or other presentations, evaluate and reflect upon the experience.

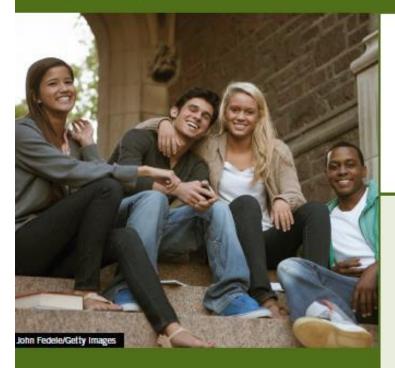
*** Please refer to Bright Futures Student Handbook for further information. ***

Federal Student Aid (FAFSA)

The Guide to Federal Student Aid 2018-19

DO YOU NEED MONEY FOR COLLEGE?

This publication provides basic information on federal student aid to help you pay for college or career school.



STUDENTAID.GOV

Federal Student Aid

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What is federal student aid?

It's money from the federal government—specifically, the U.S. Department of Education—that helps you pay for college, career school, or graduate school expenses. Federal student aid is available through grants, workstudy, and loans every year.

Who gets federal student aid?

Every student who meets certain eligibility requirements can get some type of federal student aid, regardless of age or family income. If you are a student, some of the most basic eligibility requirements are that you must

- · demonstrate financial need (for most programs);
- · be a U.S. citizen or an eligible noncitizen:
- have a valid Social Security number;
- be registered with Selective Service if you're a male between the ages of 18 and 25;
- be enrolled or accepted for enrollment in an eligible degree or certificate program;
- be enrolled at least half-time (for most programs);
- maintain satisfactory academic progress in college, career school, or graduate school;
- sign the certification statement on the Free Application for Federal Student Aid (FAFSA®) form stating that
 - you are not in default on a federal student loan and do not owe money on a federal student grant, and
 - you will use federal student aid only for educational purposes; and
- show you're qualified to obtain a college or career school education by
 - having a high school diploma or a General Educational Development (GED) certificate or a state-recognized equivalent; or
 - completing a high school education in a homeschool setting approved under state law; or
 - enrolling in an eligible career pathways program.

Find more details about eligibility requirements at StudentAid.gov/eligibility.

Who Wins Scholarships?

- Very few students win a completely free ride. Of students enrolled full-time at a 4-year college:
 - 0.3% get enough grant funding to cover the full Cost of Attendance (COA)
 - 1.0% get enough grants to cover 90% or more of the COA
 - 3.4% get enough grants to cover 75% or more of the COA
 - 14.3% get enough grants to cover 50% or more of the COA
 - 69.1% received less than \$2,500
- More students at 4-year colleges win scholarships
 - 8.3% of students at 4-year colleges win scholarships
 - 2.6% of students at 2-year colleges win scholarships

Lucrative Majors

Major	Percentage Winning	Average Award
Math/Statistics	23.2%	\$4,059
Engineering	17.6%	\$3,075
Physical Sciences	17.1%	\$3,180
Life Sciences	16.9%	\$2,649
Education	15.0%	\$2,420
Health	14.8%	\$2,880
Social Sciences	12.7%	\$3,063
Humanities	12.5%	\$2,623
Computer Science	11.1%	\$2,974
Business	9.1%	\$2,828

Better Grades - More Chances of Winning Scholarships

Cumulative Grade Point Average (GPA) on a 4.0 Scale	High School GPA (% Winning Scholarships)	College GPA (% Winning Scholarships)
0.0-1.9 (D- to C)	5.7%	7.0%
2.0-2.4 (C to B-)	7.1%	9.1%
2.5-2.9 (B- to B)	9.5%	10.7%
3.0-3.4 (B to A-)	10.7%	13.1%
3.5-4.0 (A- to A)	18.7%	18.8%



Key Scholarship Application Information Quick Reference Guide

Tips for Applying for and Managing the Scholarship Search

- Start searching for scholarships as soon as possible. There are many scholarships available to students in grades K-11, so don't wait until spring of your senior year. Continue searching for scholarships even after you are enrolled.
- Use a free scholarship matching such as Fastweb.com. The Fastweb database is updated daily and the site will email notifications of new scholarships that match your profile.
- Answer all of the optional questions on a scholarship matching web site to create as many matches as available.
- Look for local scholarships on bulletin boards near the guidance counselor or financial aid offices, or the library's jobs and careers section. Improve grades for more matches.
- To win more scholarships, apply to every scholarship for which you are eligible. It gets easier after several applications. Also, pursue small awards and essay contests. Essays can be reused and tailored to each new application.
- · Don't miss deadlines. Use checklists to get organized.
- Tailor your application to the sponsor's goals. Read and follow the instructions carefully.
- If you have difficulty writing essays, record yourself as you
 answer the question out loud and transcribe the recording. Most
 people think and speak faster than they can write or type. Write
 an outline afterward to organize your thoughts.
- Personalize your essay and be passionate. Write about something of interest to you. Make your application stand out from the crowd, talk about your impact on other people and give specific examples.
- Check your online presence to ensure that it looks professional.
 Review your social media profiles and remove inappropriate and immature material. Use a simple email address, such as firstname.lastname@gmail.com.
- Proofread a printed copy of your essay and the application for spelling and grammar errors.
- Make a copy of your application before mailing it. Send by certified mail, return receipt or with delivery confirmation.

Common Scholarship Application Mistakes

- · Missing deadlines
- · Failing to proofread the application
- Failing to follow directions, especially regarding essay length and the number of recommendations
- · Omitting required information
- · Applying for an award when you don't qualify
- Failing to apply for an award for which you are eligible
- · Failing to tailor the application to the sponsor
- Writing a boring essay
- · Writing an essay that may offend the reviewer
- · Including exaggerations or lies on your application

Beware of Scholarship Scams

- If you have to pay money to get money, it's probably a scam.
- Never invest more than a postage stamp to get information about scholarships or to apply for a scholarship.
- · Nobody can guarantee that you'll win a scholarship.
- Do not give out personal information like bank account, credit card or Social Security numbers.
- Beware of the unclaimed aid myth. The only money that goes unclaimed is money that can't be claimed

Essential Scholarship Resources

- Fastweb Free Scholarship Matching Service: www.fastweb.com
- FinAid's Scholarships Section: www.finaid.org/scholarships
- Search for Scholarships on the Web: www.finaid.org/websearch
- Beware of Scholarship Scams:
 <u>www.finaid.org/scholarshipscams</u> and
 www.ftc.gov/scholarshipscams
- Education Tax Benefits: www.finaid.org/taxbenefits and www.irs.gov/pub/irs-pdf/p970.pdf
- Federal Student Financial Aid: www.fafsa.ed.gov

Top Scholarships by Category

Most Unusual Scholarships

- Scholarship for Left-Handed Students
- Duck Brand Duct Tape Stuck at Prom Contest
- David Letterman Telecommunications Scholarships
- Zolp Scholarships
- Patrick Kerr Skateboard Scholarships
- Scholar Athlete Milk Mustache of the Year Award
- National Marbles Tournament Scholarships
- Klingon Language Institute Scholarships
- National Beef Ambassador Program
- Vegetarian Resource Group Scholarships

Most Prestigious Scholarships

- Marshall Scholarships
- Rhodes Scholarships
- Winston Churchill Scholarship Program
- · Harry S. Truman Scholarships
- Henry Luce Foundation Scholarships
- Morris K. Udall Foundation Undergraduate Scholarships
- Robert C. Byrd Honors Scholarship Program
- Barry M. Goldwater Scholarships
- Elie Wiesel Prize in Ethics Essay Contest
- National Merit Scholarship Corporation

Most Generous Scholarships

- Intel Science Talent Search
- Siemens Competition in Math, Science and Technology
- NIH Undergraduate Scholarship Program
- Elks Nat'l Foundation Most Valuable Student Competition
- Davidson Fellows
- Intel International Science and Engineering Fair
- Rotary Foundation Ambassadorial Scholarships
- Collegiate Inventors Competition
- Coca-Cola Scholars Program Scholarships
- Gates Millennium Scholars

Scholarships for Age 13 and Under

- National Spelling Bee
- National Geography Bee
- National History Day Contest
- Jif Most Creative Peanut Butter Sandwich Contest
- Scholastic Art & Writing Awards
- Christopher Columbus Community Service Awards
- Dick Blick Linoleum Block Print Contest
- Gloria Barron Prize for Your Heroes
- Patriot's Pen
- Prudential Spirit of Community Awards

Scholarships for Community Service

- Segal AmeriCorps Education Awards
- The Do Something Awards
- Comcast Leaders and Achievers Scholarships
- Discover Card Tribute Awards
- Echoing Green Fellowships
- The Heart of America Christopher Reeve Awards
- Kohl's Kids Who Care Program
- Samuel Huntington Public Service Awards
- National Caring Awards
- Youth Action Net

Scholarships that Don't Need an A

- US Department of Education (Federal Student Aid)
- AXA Achievement Scholarship Program
- Horatio Alger Association Scholarships
- Ayn Rand Institute
- · Girls Going Places Scholarships
- Holocaust Remembrance Project Essay Contest
- Americanism Essay Contest
- AFSA National Scholarship Essay Contest
- · Red Vines Drawing Contest
- Community Foundation Scholarships

College Visits



There are 135 colleges in Florida, 78 public and 56 private, offering a wide range of programs and majors. Twelve of these universities are within the State University System. However, you have to choose just one of the Sunshine State's many colleges and universities. A campus visit is your opportunity to get a firsthand view of a college. To ease this selection process, Orlando Science Schools organize many college trips throughout your high school years. Here is why you should join us for the college visits:

Get Answers to Your Questions

A visit gives you the chance to talk to students, faculty, and financial aid and admission officers. You can get answers to important questions, including:

- What is the average class size and the student-tofaculty ratio? Are most classes taught by professors or by teaching assistants?
- What is the makeup of the current freshman class? Is the campus fairly diverse?
- What's the social scene like? What kinds of activities are available?
- Is there plenty of dorm space or is there a housing crunch?
- How many students are commuters and how many are campus residents?



Get Valuable Information

- Pick up any official college material you see, such as brochures and financial aid forms. Do not forget to get business cards, so you will have a real, live contact if you have a question about admission or financial aid.
- Student newspapers and activity calendars give you a sense of what campus life is really like. Check out bulletin boards to see what bands are coming to the campus, what parties are advertised, what internships are posted and generally what the day-to-day energy of the place is like.



Get Ready to Decide

Ultimately, it is your decision. Listen to your gut. Do you feel comfortable walking around campus? Do you feel at home? Do you click with the students and faculty? Is this what you imagined college to be like? Spending time on a campus helps you determine whether a college is a good fit. Use the checklist above for campus visits to remind yourself of everything you want to do once you get to campus.



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