

## STEM

X N T I I

Project Lead The Way® (PLTW) promotes pre-

T925 HUMAN BODY	Semester	Students examine the interactions of human body systems as they explore				
SYSTEMS	(18 Weeks)	identity, power, movement, protection, and homeostasis in the body.				
N1302093						
	Grade 9					

Credit 1 Weight 1.0



T365 FOUNDATIONS OF CYBERSECURITY 03580850	Semester (18 Weeks) Grade 9 Credit 1 Weight 1.0	Students in the Foundations of Cybersecurity course develop the knowledge and skills needed to master fundamental concepts of cybersecurity by exploring challenges facing information security professionals related to ethics, system security, network security, and application security. Students will examine trends in cyber-attacks, common vulnerabilities, and the emergence of cyber terrorism. Students will develop and implement security policies to mitigate those risks. To prepare for success, students will have opportunities to apply, reinforce, and transfer knowledge and skills to a variety of settings and problems.
T346 COMPUTER MAINTENANCE/LAB 13027310	Yearlong (36 Weeks) Grade 10-11 Credit 2 Weight 1.0	In Computer Maintenance Lab, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies. <i>Prerequisite: Foundations of Cybersecurity, or Information Technology</i>
T340 NETWORKING/ LAB 13027410	Yearlong (36 Weeks) Grade 10-11 Credit 2 Weight 1.0	In Networking Lab, students will develop knowledge of the concepts and skills related to telecommunications and data networking technologies and practices to apply them to personal or career development. To prepare for success, students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. This course must be taken concurrently with Networking and may not be taken as a stand-alone course. Districts are encouraged to offer this course in a consecutive block with Networking to allow students sufficient time to master the content of both courses. <i>Prerequisite: Computer Maintenance/Lab</i>

T363 PRACTICUM IN Yearlong In the Practicum in Information Technology, students will gain advanced INFORMATION (36 Weeks) knowledge and skills in the application, design, production, implementation, TECHNOLOGY maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT 13028000 concepts and standards are essential to prepare students for success in a Grade 10-11 technology-driven society. Critical thinking, IT experience, and product Credit 2 development may be conducted in a classroom setting with an industry Weight 1.0 mentor, as an unpaid or paid internship, as part of a capstone project, or as

career preparation.



T913 (PLTW)	Semester	Students explore the breadth of engineering career opportunities and
ENGINEERING	(18 Weeks)	experiences as they solve engaging and challenging real-world problems like
ESSENTIALS		creating a natural relief center system or creating a solution to improve the
N1303760		safety and well-being of local citizens. Prerequisite:
	Grade 9	Successful completion of Algebra I or concurrently enrolled
	Credit 1	
	Weigh 1.0	
T912 (PLTW)	Semester	Advanced math and science problem solving skills are used in various design
INTRODUCTION TO	(18 Weeks)	applications throughout this course. Students explore the design
ENGINEERING DESIGN		development process of a product and how a model of that product is
(IED) N1303742		produced, analyzed and evaluated using freehand sketching methods and
	Grade 10-11	concept of creating 3-D models or solid rendering of a model <b>Prerequisite</b>
	Credit 1	Successful completion of Algebra I or concurrently enrolled
-	Weight 1.0	

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T919 (PLTW) AEROSPACE ENGINEERING (AE) N1303745	Yearlong (36 Weeks) Grade 11-12 Credit 1 Weight 1.0	Advanced math and science problem solving skills are used in various design applications throughout this course. This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring concepts to life by designing an airfoil, propulsion system and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles. <i>Prerequisite: Introduction</i> <i>to Engineering Design and physics</i>
T914 PRACTICUM IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS 13037400	Yearlong (36 Weeks) Grade 11-12 Credit 2	The course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience <i>Prerequisitle537.67 346.13 78.5(r)3(equ)-4(is)-8(it)-2(I)5(e537.67 346.13 78</i>



https://alamoacademies.com

	ITSA Year One	PEIMS	6	Section	Course	Hurs
T352DA	Computer Maintenance/Lab	13027310	2	1st,2nd Per Fall	ITSA 1305	3

T340DA

Networking/Lab

130274F4



Career and Technical Student Organizations (CTSOs) play an integral part in a student's career and technical Education CTSOs enrich student learning that starts in the classroom, build strong partnerships between industries and future employees, and provide future career experience that students carry into their careers and communities. https://txcte.org/teachers. Student CTSO membership requires student enrollment in

Foundation High School Program	The basic 22-credits (not counting additional electives or endorsement courses) needed to graduate from the Texas public school system.
FAFSA	This is the federal student financial aid application. It stands for Free Application for Federal Student Aid.
Industry Workforce Credential	A state, nationally, or internationally-recognized credential that aligns with the knowledge and skills standards identified by an association or government entity representing a particular profession or occupation and valued by business or industry.
Programs of Study	Programs of Study provides students with course sequences that prepare them for success in in- demand, high wage, high skill careers.
Performance Acknowledgements	Students may earn an additional acknowledgement on their diploma because of outstanding performance in areas such as dual credit courses and bilingualism and bi-literacy; on Advanced Placement (AP) exams, International Baccalaureate, PSAT, ACT's Plan, the SAT or ACT exams, or by earning a nationally or internationally- recognized business or industry certification.

STAAR

State of Texas Assessments of Academic Readiness (STAAR) is the state-mandated test given annually to students in grades 3 - 8 and in five high school courses.