

# Torrance USD Program of Study for INF Software & Systems Development-Systems Programming Pathway 174A

Industry Sector: Information & Communication Technologies (INF)						Pathway: Software & Systems Development-Systems Programming (174A)				
Torrance Unified School District (TUSD) Program of Study										
Site	Grade	English	Math	Social Studies	Science	Other Required Courses or Recommended Electives			Career Technical Education Course	Occupations, Degrees, & Certificate Programs
T O R R A N C E  U N I F I E D	7	English 7	Math 7	Soc. St. 7	Science 7	Elective	PE	--	--	<u>Occupations (High School Diploma)</u> • Military Communication Specialist
	8	English 8	Math 8	Soc. St. 8	Science 8	--	PE	--	PLTW Computer Science CSIM & AC	<u>Occupations (Training/2-Yr Degree)</u> • Computer User Support Specialist • Web Administrator • Cybersecurity Specialist/Auditor • IT Analyst Level 1
	9	English 1	Algebra 1	--	Biology	World Lang	PE	Health/Comp Sci Discoveries	--	<u>Occupations (4-Yr Degree/Higher)</u> • Software Developer • Information Security Analyst • Computer Programmer • CIS Manager • Computer Systems Analyst • Computer Info Research Scientist • Info Technology Project Managers • Fraud Examiner/Analyst • Military Officer
	10	English 2	Geometry	*World History	Chemistry or Physics	World Lang	PE	--	--	
	11	English 3 or AP Comp	Algebra 2	*US History	(See CTE)	World Lang	--	Fine Arts	AP CSP	
	12	*English 4 or AP Lit	Math Elective	Gov/Econ	--	--	--	--	Cybersecurity	
	UC CSU	4 Yrs Req	3 Yrs Req 4 Yrs Rec	2 Yrs Req	2 Yrs Req 3 Yrs Rec	2 Yrs Req 3Yrs Rec	--	1 Yr Fine Arts Req 1 Yr Elective Req	CTE is not req for UC/CSU/TUSD	<u>These CTE courses meet the 3rdYr Science &amp; Elective Req.</u>
	TUSD	4 Yrs Req	2 Yrs Req	2 Yrs Req & Econ/Gov	2 Yrs Req	1 Yr Lang or Fine Art Req	2 Yrs Req	1 Sem Health Req		
E L C A M I N O  C O L L E G E	* Indicates a course that has the option of earning high school credit AND college credit through El Camino (see your high school counselor for details on dual enrollment & articulation)									
	13 ↓ 15	<u>General Education Requirements for ECC Majors</u>				<u>ECC Computer Info Systems AS Degree Requirements</u>				<u>Degree Programs</u> • Computer Information Systems • Computer Science/Programming • Information Technology • Computer Software Technology • Informatics • Computer/Software Engineer  <u>Industry Certifications/Licenses</u> Offered through Precision Exams • Exploring Computer Science • Computer Science Principles  Offered through El Camino • Cisco Network Admin • Cloud Computing w/ Amazon • Computer Systems Apps • Computer User Support Specialist • Cybersecurity • Database Management
		<u>Required Categories for ECC AS Degree</u> Natural Sciences (3 units) Social and Behavioral Sciences (3 units) Humanities (3 units) Language and Rationality (6 units) • One course from each section: A & B Health & PE (3 units) • Exemption Options: Pass the Contemporary Health Waiver Exam or obtain approval for the Petition for Military Service Credit. Mathematics • Option 1: Pass the Math Competency Test • Option 2: Pass one approved Math class with a C or better Electives • Additional units needed to total 60 units • Courses cannot double count in multiple categories				<u>AS Degree in CIS</u> <b>Required 9 Units</b> CIS 13, 119, and 26 or28  <b>Required 17-20 w/in ONE of the following areas:</b>  <u>Help Desk:</u> Business 27, 60A, 60B; CIS 2, 11, 40 <u>Database:</u> CIS 18, 28, 29, 80, 84 <u>Networking:</u> CIS 40, 137, 140, 141, 142, 143 <u>Programming:</u> CIS 16, 18, 80, 133, 134 <u>Mobile/Web Programming:</u> CIS 84, 132, 133, 134, 136 <u>Cybersecurity:</u> Admin of Justice 142; CIS 119, 120, 121, 122, 137		<u>Computer Science Certificate of Completion</u> <b>Required Courses</b> Comp Sci 1, 2  <b>Required 3 Courses From:</b> Comp Sci 3, 12, 16, 30, 40 Math 210  <b>Required:</b> minimum grade of C or better in each course  <b>Please Note:</b> computer science courses are designed primarily for students to transfer to a 4-year institution.		
		Please note, additional courses are needed to meet the <u>UC/CSU Transfer Requirements</u> . See your ECC counselor for details.								