

Industry Sector:ICT

Software and Systems Development

CTE PROGRAM OF STUDY: C-STEM Information and Communication Technologies

Levels	Grade	CTE/CS Courses	English Language Arts	Math	Social Science	Science	Other Required Courses or Recommended Electives		
		TK	Computer Science with Robotics for Transitional Kindergarten	English	Mathematics with Robotics for Transitional Kindergarten		Computer Science with Robotics for Transitional Kindergarten		
K	Computer Science with Robotics for Kindergarten	English	Mathematics with Robotics for Kindergarten		Computer Science with Robotics for Kindergarten				
Recommended Activities: RoboBlocky									
1	Computer Science with Robotics for Grade 1	English	Mathematics with Robotics for Grade 1		Computer Science with Robotics for Grade 1				
Recommended Activities: RoboBlocky									
2	Computer Science with Robotics for Grade 2	English	Mathematics with Robotics for Grade 2		Computer Science with Robotics for Grade 2				
Recommended Activities: RoboBlocky									
E l e m e n t a r y	3	Computer Science with Robotics for Grade 3	English	Mathematics with Robotics for Grade 3		Computer Science with Robotics for Grade 3			
	Recommended Activities: RoboPlay Competition								
	4	Computer Science with Robotics for Grade 4	English	Mathematics with Robotics for Grade 4		Computer Science with Robotics for Grade 4			
	Recommended Activities: RoboPlay Competition								
	5	Computer Science with Robotics for Grade 5	English	Mathematics with Robotics for Grade 5		Computer Science with Robotics for Grade 5			
	Recommended Activities: RoboPlay Competition								
	6	Computer Science with Robotics for Grade 6 Introduction to Robotics (Ch/C/C++)	English	Mathematics with Robotics for Grade 6		Computer Science with Robotics for Grade 6 Introduction to Robotics (Ch/C/C++)			
	Recommended Activities: RoboPlay Competition								

M i d d l e	7	Computer Science with Robotics for Grade 7	English	Grade 7 Mathematics with Computing	World History / Geography	Life Sciences	Physical Education							
		Introduction to Robotics (Ch/C/C++)												
		Introduction to Computer Programming (Ch/C/C++)												
Recommended Activities: RoboPlay Competition, GIRL Camp														
8	Computer Science with Robotics for Grade 8	English	Grade 8 Mathematics with Computing	US History / Geography	Life Sciences	Physical Education								
	Introduction to Robotics (Ch/C/C++)													
	Introduction to Computer Programming (Ch/C/C++)													
Recommended Activities: RoboPlay Competition, GIRL Camp														
S e c o n d a r y - H S N a m e	9	Computer Science with Robotics for Grades 9-12	English	Algebra I with Computing and Robotics (Honors) or IM1 with Computing and Robotics (Honors)		Physical Science	Math Lab with Computing and Robotics (C-credit)	Physical Education						
		Recommended Activities: RoboPlay Competition												
		AP Computer Science Principles with Robotics		English			Geometry with Computing and Robotics (Honors) or IM2 with Computing and Robotics (Honors)		World History	Biological Science	Physical Education			
Recommended Activities: RoboPlay Competition,, GIRL+ Camp. Add to digital portfolio.														
Computer Programming for Solving Applied Problems (C Programming)	English	Algebra II with Computing and Robotics. IM3 with Computing and Robotics	US History			Foreign Language I or Visual & Performing Arts ★ (Districts may allow CTE to fulfill this)								
Recommended activities: RoboPlay Competition, , GIRL+ Camp, Job Shadowing. Add to digital portfolio.														

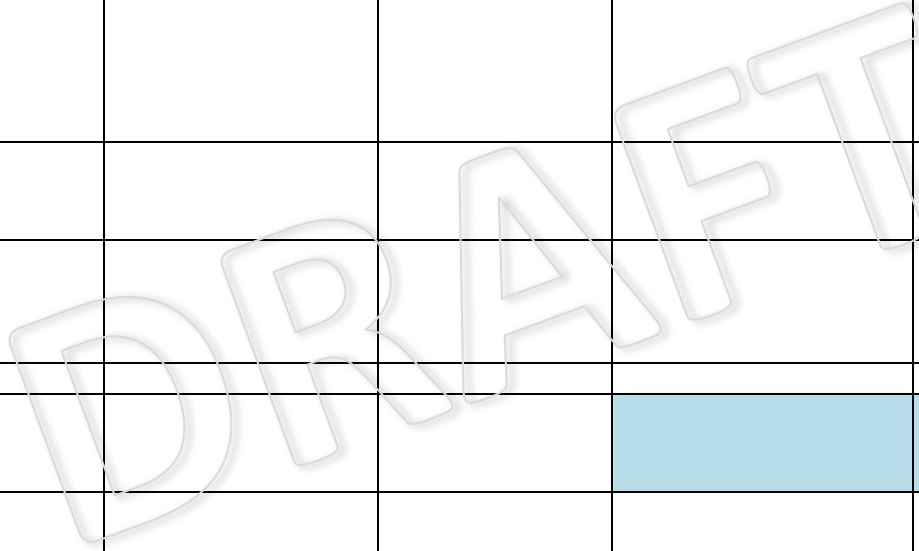
12	Robotic Technologies (Arduino, Sensor-Based Robotics)		AP Statistics or Pre-Calculus (with Computing and Robotics)	Government(semester) Economics (semester)			
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Recommended activities: RoboPlay Competition, Job Shadowing, Work Based Learning, Service Based Learning, Enroll at Community College. Add to digital portfolio.

CTE Courses

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13	Advanced Computer Programming in C						
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Comments:

- Prerequisite requirements may vary by school and may alter the sequence of courses above.
- This template is based upon requirements for CSU transfer pattern and assumes that all basic skills (remedial) coursework is completed.
- Where there are course numbers identified, the course number references the CID course. Course content for these courses may be found at www.cid.net/descriptors. Per Title 5, students may only receive credit for articulated high school work upon completion of a credit by exam mechanism that ensures that the objectives of the community college course have been met. Completion of an articulated course in high school does not guarantee receipt of credit at the community college.

Dual and/or Concurrent Enrollment	Articulated Courses (College Credit for HS Classes)			

n		This template assumes students have completed high school exit exams and basic skills coursework. Local graduation requirements may vary.
		Legend:
		 Course is recommended by industry experts
		 Course is articulated, see comments below

STAT120: Statistics ★		★	Course may be taken via concurrent or dual enrollment
		⊙	Indicates a course that may satisfy multiple requirements
	