

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

Industry Sector:ICT

Software and Systems

Levels	Grade	CTE/CS Courses	English Language Arts	Math	Social Science	Science	Other Required Courses or Recommended Electives		
		Elementary	K	CS/STEAM with Robotics for Kindergarten	English	Mathematics with Robotics for Kindergarten		CS/STEAM with Robotics for Kindergarten	
Recommended Activities: RoboBlockly									
1	CS/STEAM with Robotics for Grade 1		English	Mathematics with Robotics for Grade 1		CS/STEAM with Robotics for Grade 1			
Recommended Activities: RoboBlockly									
2	CS/STEAM with Robotics for Grade 2		English	Mathematics with Robotics for Grade 2		CS/STEAM with Robotics for Grade 2			
Recommended Activities: RoboBlockly									
3	CS/STEAM with Robotics for Grade 3 (Programming in Ch)		English	Mathematics with Robotics for Grade 3		CS/STEAM with Robotics for Grade 3			
Recommended Activities: RoboBlockly									
4	CS/STEAM with Robotics for Grade 4		English	Mathematics with Robotics for Grade 4		CS/STEAM with Robotics for Grade 4			
Recommended Activities: RoboBlockly									
5	CS/STEAM with Robotics for Grade 5	English	Mathematics with Robotics for Grade 5		CS/STEAM with Robotics for Grade 5				
Recommended Activities: RoboBlockly									
6	CS/STEAM with Robotics for Grade 6	English	Mathematics with Robotics for Grade 6		CS/STEAM with Robotics for Grade 6				
Recommended Activities: RoboBlockly									
Middle	7	CS/STEAM with Robotics for Grade for Middle School Introduction to Computer Programming (Learn Ch)	English	Grade 7 Mathematics with Computing	World History / Geography	Life Sciences	Physical Education		

d d l e	Recommended Activities: RoboPlay Competition							
	8	CS/STEAM with Robotics for Middle School Robotics and Video Production (Learn Linkbot)	English	Grade 8 Mathematics with Computing	US History / Geography	Life Sciences	Physical Education	
Recommended Activities: RoboPlay Competition								
S e c o n d a r y - H S N a m e	9	Computer Science with Robotics	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, Mouse Squad, Students Recycling Used Technologies, Cyber Security Competition, Gaming Clubs, Computer Science Clubs, Virtual Enterprise, Think Quest, Imagine Cup, Job Shadowing activities, Career Tech Student Organizations (CTSO's). Begin a digital portfolio.							
	10	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, Mouse Squad, Students Recycling Used Technologies, Cyber Security Competition, Gaming Clubs, Computer Science Clubs, Virtual Enterprise, Think Quest, Imagine Cup, Job Shadowing, Mentoring activities, Career Tech Student Organizations (CTSO's). Add to digital portfolio.							
	11	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, Job Shadowing, Work Based Learning, Service Based Learning, Mentorships, Career Technology Student Organization (CTSOs), Maker Fair, Hacker Space, Think Quest, Imagine Cup, NetRiders, Take Community College placement tests in Math and English. Seek industry certifications such as Microsoft, CompTIA, CIW, CISCO, etc. Add to digital portfolio.								
12	Robotic Technologies (Arduino, Sensor-Based Robotic)		AP Statistics or Pre-Calculus (with Computing and Robotics)	Government(semester) Economics (semester)				
Recommended activities: RoboPlay Competition, Job Shadowing, Work Based Learning, Service Based Learning, Mentorships, Career Technology Student Organization, Maker Fair, Imagine Cup, NetRiders. Seek industry certifications such as Microsoft, CompTIA, CIW, CISCO, etc. Enroll at Community College. Add to digital portfolio.								
P O S T S E	CTE Courses							
	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.