

SDHXCS Enrichment Classes (才艺课)

Subject (科目): Please select one of the categories	Computer Science		
Course Name (课程名称):	American Computer Science League Competition (计算机基础竞赛)		
Teacher Name (教师姓名)	Paul Cao, PhD (曹英俊)	Phone	(440) 320 – 2818
		email	cs4fun.sd@gmail.com
Teacher's background and brief (教师及其简介):	Dr. Paul Cao is currently a lecturer in the Computer Science & Engineering Department at University of California San Diego (UCSD) who won the best teacher award at UCSD in 2021. Before coming to UCSD, he was an Associate Professor of Computer Science at Ashland University (OH). He received his Ph.D. in Computer Engineering at Duke University. Paul has extensive teaching experience at the undergraduate and K-12 levels. He is in charge of undergraduate courses such as Computer Programming I and II, Computer Organization, and Advanced Data Structure. He is well known nationally on his research on Computer Science education, especially at the K-12 level. Paul Cao 目前是加州大学圣地亚哥分校 (UCSD) 计算机科学与工程系的讲师, 他于 2021 年获得 Jacob 工程学院最佳教师称号。在加入加州大学圣地亚哥分校之前, 他是亚什兰大学的计算机科学副教授。他具有杜克大学计算机工程专业的博士学位。Paul 在本科和 K-12 教育领域拥有丰富的教学经验。他在 UCSD 负责发展本科课程, 如计算机编程 I 和 II, 计算机组织和高级数据结构。他在美国计算机科学教育, 尤其 K-12 教育研究领域中有较高声誉。		
Course brief and Description (课程简述):	This class is designed to prepare students of various ages to compete at the annual ACSL competitions (acsl.org). Students aged from 8 to 18 qualify to compete and they will compete based on their age group: elementary division (3rd – 6th graders), junior division (7th – 9th graders), and senior divisions (10th grade and above). ACSL topics are foundational to computer science and this class will prepare our students for more serious computing related competitions such as USACO (United States Computing Olympiad). 本课程主要侧重于培训 8 岁到 18 岁的学生参加每年一度的 ACSL 计算机竞赛。学生会分成小学组, 初中组和高中组。ACSL 竞赛包括计算机的基础知识, 会对学生的计算机基础有所帮助, 也有助于参加以后更高端的竞赛, 例如美国信息科学竞赛		
Course Objectives (课程目标):	- Computer number systems (binary, octal, hex) - Prefix/Infix/Postfix expressions - Boolean algebra - Basic graph theory - Basic data structures (stack, queue) - Circuit design		

	- Recursion - Basic coding in a programming language (python)			
Pre-requisite/Student Ages (先决要求/学生年龄要求):	9 years old to 18 years old 9 岁到 18 岁			
Student Evaluation / Presentation (评分方法 (演出、比赛、展示等)):	The evaluations will be based on regular homework assignments and final projects. 根据学生完成与否定期的家庭作业和最终项目给予期末评估。			
Maximum Number of Students to be Enrolled (最多招生人数限制):	Min: 5 Max: 15			
Course Fee (报名费 / 学费):	Registration & material fee	\$800/Year	Course Time & Location	Sundays 1:30 Pm – 3:00 Pm Building S5

