

Hawai'i APSI 2024 Agenda



Date: 15-18 July, 2024
Time: 8:00 am-4:00 pm
Damien Memorial School

Theme:

New Location, New Experience and a New Sense of Aloha!
(The Aloha Spirit – compassion and kindness to all with whom we cross paths in our everyday lives).

Course Description:

AP® Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. It is important to note that the AP® Computer Science Principles course does not have a designated programming language. Teachers have the flexibility to choose a programming language(s) that is most appropriate for their students to use in the classroom.

The following are some of the goals for the week:

- Participants will examine detailed information about the current AP® Computer Science Principles syllabus, including the AP® Computer Science Principles Framework and the Course and Exam Description (CED)
- Participants will become familiar with the recent changes in the Performance Task and all College Board computer science resources, including a detailed look at AP® Classroom
- Participants will discuss shared activities that relate to each of the Big Idea and Computational Thinking Practice. Significant time will be spent on developing scaffolding for helping all students obtain success on the Performance Task. This scaffolding will include programming examples that are iteratively and incrementally developed to illustrate for students how programs should be created and improved ("You are never done, you are only out of time.")
- Participants will develop activities that will help their students master the multiple choice portion of the AP® Computer Science Principles Exam and the Performance Task
- The College Board's Equity and Access statement and ideas for creating and maintaining an equitable learning environment for all students will be presented and discussed

Expected outcomes for the 4-days: *Participants will...*

- Improve their understanding of the CED and APCSP Exam format
- Improve their ability to prepare their students for exam success
- Learn how to plan their course using the CED
- Learn how to effectively utilize AP® Classroom to plan and present their course
- Become knowledgeable about, and join the AP® Computer Science Community
- Obtain activities, materials, and ideas for creating their own resources
- Experience the tremendous impact computer science has on everyone's life

What should participants bring to the workshop?

- A laptop or tablet is helpful
- Activities and ideas that have worked for their students in their APCSP classroom

Agenda for Days 1-4

This schedule may change in accordance with the participant needs as determined during the first day of the workshop

Day 1

- Understanding the Course
- Welcome and Introduction of the Participants and the Instructor. Introduction to In-person and Online Learning Tools – Features and Uses
- Sharing experiences teaching computer science using traditional techniques and online techniques. Sharing teacher priorities for the week
- The APCSAP Course and Exam Description (CED). Teachers will discuss the CED, Big Ideas, Computational Thinking Practices, and the Course Framework
<https://apcentral.collegeboard.org/media/pdf/ap-computer-science-principles-course-and-exam-description.pdf>
- Big Ideas and Computational Thinking Practices (Skills)
- Exam Overview
- Sample Syllabi, CPPG, Endorsed Providers

Day 2

- Planning the Course
- Curricular Requirements
- AP® Course Audit
- Programming Languages and Environments, and Examples, Programming Practice
- Finding Resources from Endorsed Providers
- AP® Central – Course Content, Question Banks
- APCSP Teacher Community
- Unit Planning
- Achieving Equity in APCS
- Instructional Approaches
- Structured Learning Techniques

Day 3

- Teaching the Course
- Consultant Resources
- Exploring a CPPG
- Preparing Multiple Choice Questions
- Exploring Past APCSP Exams
- Taking a Deep Dive into the APCSP Exam
- Types of Exam Questions
- The Performance Task – Creating Scaffolding for Student Activities
- AP® Reading – Scoring the APCSP Performance Task
- Task Guidelines
- Task Rubrics

Day 4

- Assessing Student Progress and Understanding
- AP® Classroom – Formative and Summative Questions
- Building Assessments with AP Classroom
- Analyzing Class Reports
- Analyzing Student Reports
- Planning Your APCSPMa Course
- Creating an Instructional Plan by Unit and Topic in an Academic Calendar
- Interpreting Data within the Instructional Planning Report
- Creating Additional Resources for your APCSP Course
- Conferences and Teacher Professional Development
- <http://csta.acm.org/ProfessionalDevelopment/sub/CSITConference.html>
- <http://www.sigcse.org/>
- <http://apac.collegeboard.org/>



Speaker
Richard Kick
AP® Computer Science Principles Consultant