

# The Beauty and Joy of Computing

A creative and engaging start to learning computer science



## What is BJC?

**BJC** is an introductory computer science curriculum for high school or college students. BJC emphasizes the joy and complexity of creating visual computer programs and applications. BJC is balanced with critical reflection on the impacts of new computing technology. BJC is an AP<sup>®</sup> Computer Science Principles course supported by the NSF and endorsed by the College Board and code.org.

## Snap!, a Visual Programming Language

BJC uses Snap! (based on Scratch), one of the friendliest programming languages. It is purely graphical, which means programming involves simply dragging blocks around, and building bigger blocks out of smaller blocks.



Snap! features first class lists and first class procedures. These capabilities make Snap! suitable for a serious introduction to computer science for high school or college students.

## BJC Outreach

BJC is in 100+ high schools across the US and in Europe, Australia and Asia. BJC has been adopted by TEALS nationwide and the New York City Department of Education, the largest school district in the country. BJC is taken by thousands of students online through edX.

## BJC Curriculum

BJC follows the CS Principles framework with a programming-heavy focus and deep exploration into the social implications of computing.

### Topics: The Big Ideas of Computing

Creativity, Abstraction, Data and Information, Algorithms, Higher-Order Functions, Recursion, the Internet, Global Impact of Computing (privacy, copyright, cybersecurity, censorship)

- All course materials are free.
- Project-centric creativity and design thinking.
- Collaboration and pair programming.
- Culturally relevant topics.
- Pacing guides, online resources, shared course materials for teachers.
- Also available on edX for classroom use.

## Professional Development

We offer a 1-week PD for middle and high school teachers from all backgrounds (no prior CS experience necessary). Teachers whose school will commit to offer BJC the following year are encouraged to attend. Sign up now at [contact@bjc.berkeley.edu](mailto:contact@bjc.berkeley.edu)!



[bjc.berkeley.edu](http://bjc.berkeley.edu) | [contact@bjc.berkeley.edu](mailto:contact@bjc.berkeley.edu) |    @cspbjc

# Learn to Code & Become an AP CS Principles Teacher!

Teaching the Beauty and Joy of Computing Curriculum



## Why learn to teach BJC?

- You'll teach **rigorous yet accessible** content approved by the College Board as an Advanced Placement (AP) Computer Science Principles (CSP) course.
- **No Computer Science experience required** for teachers or students.
- **BJC professional development** provides 40 hours of face-to-face support and flexible online learning before the face-to-face week. We provide a certificate of completion for 60 CEUs.
- The **Snap! visual programming language** and research-based curriculum prepare students for the new AP CSP exam, however attendees are not required to offer BJC as an AP course.
- **BJC is designed to attract a broad population of students**, including females and underrepresented minorities, balancing programming and social implications.

## Professional Development with The Beauty and Joy of Computing

- BJC PD is **endorsed by the College Board** and serves as an **alternative to attending an AP Institute**.
- We offer **hybrid online / face-to-face professional development** opportunities during the summers.
- The cost of the workshop is **\$75** (includes all materials and ongoing support by our BJC team).
- Teachers who complete the requirements are eligible for coverage of reasonable travel & lodging expenses.

***Apps due May 15, 2019 – Apply at <https://bjc.berkeley.edu/summer-pd>***

Dates	Partner	Summer 2019 PD Locations
Jun 24 – 28		Charlotte, NC – University of North Carolina, Charlotte
July 8 – 12	A+ College Ready	Denton, TX – University of North Texas Torrance, CA – El Camino College Decatur, AL – Decatur High School
July 14 – 19	Pathfinders Infosys	Bloomington, IN – Indiana University Bloomington
July 15 – 19		Union, NJ – Kean University
July 22 – 26	Pump-CS NMSI	Claremont, CA – Harvey Mudd College Milwaukee, WI – Marquette University Dallas, TX – NMSI Building
July 29 – Aug 2		Chicago, IL – National Louis University Highland Heights, KY – Northern Kentucky University Morton, PA – DCIU Building
Aug 5 – Aug 9		Berkeley, CA – University of California, Berkeley Fairfax, VA – George Mason University Olympia, WA Seminole, FL – Seminole High School

For more info, see [bjc.berkeley.edu](https://bjc.berkeley.edu) – click on Join PD Summer 2019

Questions: [pd@bjc.berkeley.edu](mailto:pd@bjc.berkeley.edu) (include your name, school name, and location)