Welcome to our Family!

Code.org Professional Development

2015-2016

Exploring Computer Science

Code.org
1301 Fifth Avenue
Suite 1225
Seattle, WA 98101

http://code.org/pd
pd@code.org

Dear Educator,

Congratulations! You are now part of Code.org's family of teachers working across the United States to bring computer science courses to our public schools. As the founder of a young and relatively small organization, I've been humbled by the passion of educators such as yourself, taking the first step to bring computer science to your students and to open a world of opportunity for them. We look forward to working with you toward successful completion of our professional development program.

Code.org has chosen to partner with Exploring Computer Science (ECS) to offer it to schools as our introductory high school computer science course. It is an introductory college preparatory computer science course designed to broaden participation in computing. The ECS curriculum and the professional development you'll be participating in promote an inquiry-based approach to teaching and learning essential computer science concepts, while highlighting the computational practices and problem solving associated with doing computer science. ECS opens a door for students to explore what computer science is and gives them a positive exposure to computer science.

It is important that you read and understand the Code.org Welcome Kit contents as it gives key details about our program and policies that you can reference as you go through the roughly 15 months of professional development.

Please browse our website **code.org/educate** and review details specific to your workshop location at **code.org/pd**. If at any point throughout your professional development experience you have a question, please let us know by emailing **pd@code.org.**

Sincerely,

Hadi Partovi
Co-founder, CEO
Code.org

Code.org is a 501(c)3 non-profit dedicated to expanding participation in computer science education by making it available in more schools, and increasing participation by women and underrepresented students of color. The Code.org vision is that every student in every school should have the opportunity to learn computer programming

The Code.org Professional Development philosophy

Who is Code.org's Professional Development (PD) built for?

The Code.org PD program supports teachers with diverse teaching backgrounds. Whether you are new to teaching computer science (CS) or you have CS teaching experience outside this course, the PD program is designed to promote growth in your teaching practice, providing space for teachers to become comfortable with the curricular materials and associated teaching strategies.

Program features that open the door for growth:

- **Teaching and Learning in Context:** Our PD model enables participants to engage with the curriculum both as teachers and as learners. Through experiencing curriculum content as an active learner, participants gain important insight into the experiences their students will have during the academic year. Additionally, by interacting with curriculum content as instructors, participants gain essential experience planning and delivering lessons.
- **A collaborative, participant-centric approach:** Workshops and activities encourage participants and facilitators to share their expertise from the field and collaborate on strategies to bring to ECS. Our PD program provides an opportunity to learn from everyone in the room. Facilitators model behavior and pedagogical approaches, and participants share their own approaches by planning and delivering lessons.

For a full rundown of the Code.org PD philosophy, visit **code.org/educate/professional-development-philosophy**.

Program commitments

- **Phase 1:** Online Introduction
  - 2 hours online, self-paced
- **Phase 2:** Blended Summer Study
  - 5 days (30 hours) in person
  - 8 hours online, self-paced
- **Phase 3:** Academic Year Development
  - 4 days (24 hours) in person, meeting one day per quarter
  - 12 hours online, self-paced
- **Phase 4:** Summer Wrap-up
  - 3 days (18 hours) in person

Program commitments: Timeline

	Phase 1: Online Intro	Phase 2: Blended Summer Study	Phase 3: Academic Year Development	Phase 4: Summer Wrap-up
May 2015 → August 2016				
In-person PD	None	5 days	4 Saturdays	3 days
Online PD	2 hours	8 hours	12 hours	None

Overview of PD phases

The Code.org ECS professional development is broken into four phases. These phases are designed to support teachers throughout their first year of teaching ECS.

Phase 1: Online introduction

Overview: The first phase of professional development is a two-hour online introduction that focuses on providing a foundational knowledge of the ECS course resources. It creates a space for participants to become familiar with the curriculum, and the online PD platform.

Takeaways:

- I have created my **teacher account**.
- I know what ECS is, specifically **Code.org's ECS course**.
- I am **familiar with the Code.org PD tools**.
- I am **excited** to go to **Phase 2**!

Phase 2: Blended summer study

Overview: The second phase of professional development is a blended in-person and follow-up online experience.

- **In-person workshop:** This 5-day workshop is the primary capacity building experience for teachers prior to their first year of instruction. Participants will explore curriculum, tools, classroom management, and teaching strategies. Spending practical time working with the curriculum, you will develop an understanding of how to effectively use of the materials and pedagogical strategies that are part of any strong computer science classroom.

- **Online follow-up:** This 8-hour online experience provides space to plan the beginning of the academic year. Teachers will dive deeper into the curriculum reflecting on lessons students will be taught in the class. Additionally, this online piece introduces an opportunity to build a collaborative professional online learning community — an important teacher tool during the first-year of teaching this course.

Takeaways:

- I know where to find **resources and supports** I need to teach this class.
- I am part of a **professional learning community** of teachers.
- I am **learning** how to teach CS in a way that broadens participation.
- I am **confident** I can teach this course. My students and I can learn this content together... and it will be ok.
- I **understand the educational philosoph**y behind the ECS curriculum.
- I have thought about and discussed the **things to look out for** in the CS classroom (equity issues, etc).
- I have thought about and discussed **how the ECS materials will work in the classroom** and am ready for the first week.

Phase 3: Academic year development

Overview: The third phase of professional development is composed of blended ongoing quarterly in-person meetings and monthly online activities.

- **In-person quarterly workshops:** These quarterly meetings will continue to build pedagogical strategies and explore the essential elements of this course. You will participate in activities such as teaching new content and keeping the classroom environment equitable and engaging for all students.

- **Online monthly activities:** These online activities are focused on building the online professional learning community

Takeaways:

- My **professional learning community** is a good place for me to turn for support, both in and out of PD.
- I have a better idea of the curriculum, because I've had a chance to **explore it more deeply** with my professional learning community.
- I have even more ideas about leading an **engaging and equitable** ECS classroom.

Phase 4: Summer wrap-up

Overview: The fourth phase of professional development is an in-person workshop focused on diving deeper into content and material that was difficult to teach the first time. The fourth phase addresses curricular materials with an eye for teaching and learning in context. Teachers will reflect on what success looks like in an ECS course and how to recruit diverse groups of students. The workshop will empower teachers to take ownership of the curriculum by making adjustments and changes in order to meet the needs of each classroom.

Takeaways:

- **I look forward to teaching** the course again based on my reflection of the past year.
- I am more comfortable with the **material that I struggled with** the first time teaching this course.
- I understand **how to make changes** to the ECS curriculum in order to meet my local needs and fit into my context.

How do I promote the course to students?

Recruiting a diverse group of students is important to the success of the Exploring Computer Science course. Visit our online marketing kit at: **code.org/educate/marketingkit** for ideas on how to promote your school's new computer science program! Here are a few quick ideas:

Recruiting Hints

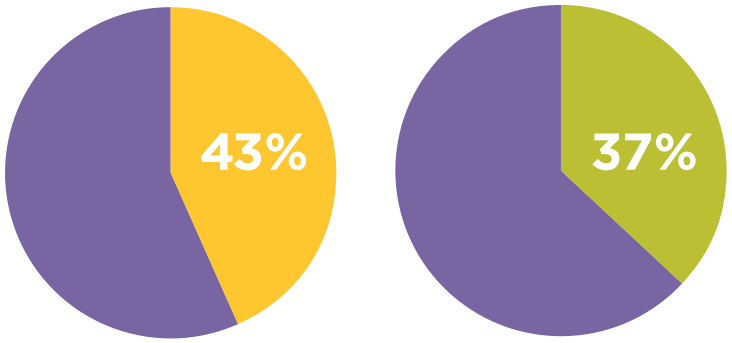
- **Host an information session during lunch or after school and actively recruit students to attend.**
- **Show promotional videos during school-wide assemblies. Find Code.org videos online at https://www.youtube.com/user/CodeOrg**
- **Show how computer science can help in every field — whether it's medicine, law, or business.**

Computer science is about making a difference in the world, creating new things, and helping others. It'll help you succeed, whether you want to be a doctor, a lawyer, a journalist, or even the next President.

Gender & racial equity: A chance to level the playing field

Exposure to CS leads to some of the best-paying jobs in the world. But 75% of our population is underrepresented.

Moving the needle on diversity in tech



Female students

African American or Hispanic Students

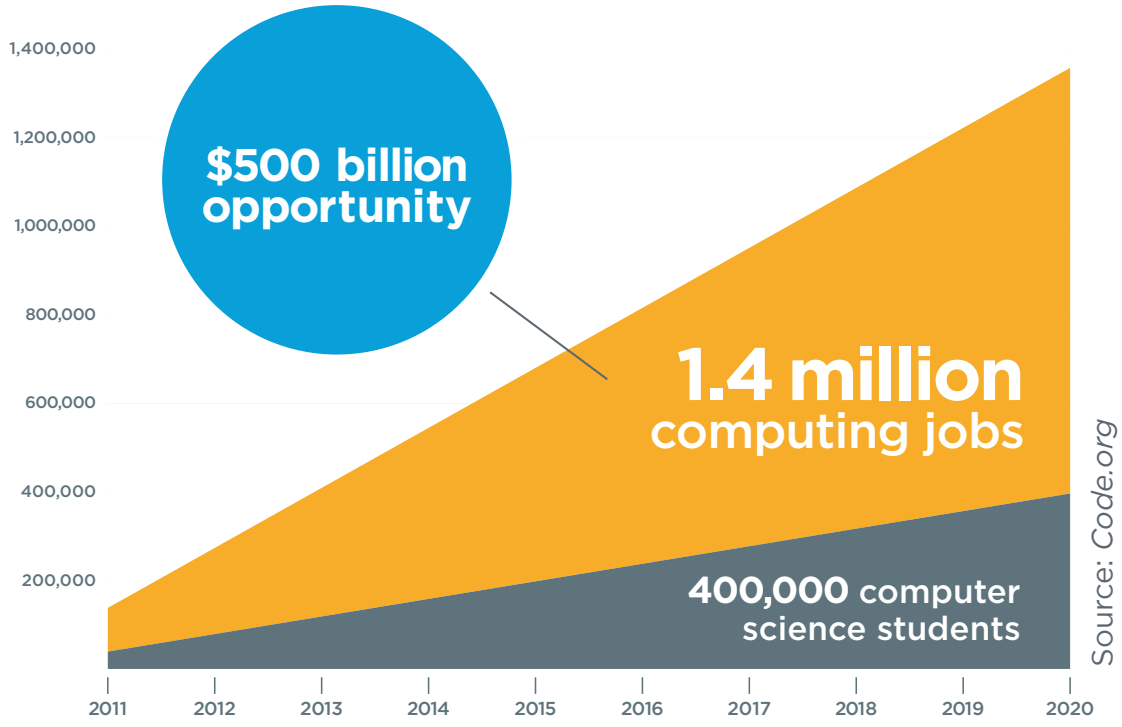
Source: *Code.org*

Over **1M girls** and over **1M African American + Hispanic** students enrolled in **Code Studio** courses

CODE STUDIO

1,000,000 more jobs than students by 2020

Computer science is a top-paying college degree and computer programming jobs are growing at 2X the national average.



ECS curriculum

Exploring Computer Science is a year-long course consisting of 6 units, approximately 6 weeks each. The course was developed around a framework of both computer science content and computational practice. Assignments and instruction are contextualized to be socially relevant and meaningful for diverse students.

To see the Exploring Computer Science Curriculum, visit: **exploringcs.com/curriculum**.
(Note: *You will receive a printed version during phase 2.*)

Code.org attendance policy

Districts are required to select teachers who will be teaching the course in the Fall, that are able to attend all days of professional development (15 months), and teachers must commit to attending all days of professional development (PD) when joining a Code.org cohort.

1. Teachers will only receive stipends for the hours that they attend the professional development.
2. Arriving/leaving over 30 minutes late/early will count as a full day absence if not approved by Code.org prior to the workshop.
3. Teacher must complete phase 1 PD prior to the start of phase 2 PD to continue to be part of the program and will not receive his/her phase 2 PD stipend until phase 1 PD is completed.
4. Teacher must attend the full 5 days of phase 2 PD to continue to be part of the program.
5. Teacher must be teaching computer science to a minimum of 1 section of students when the school year begins to continue to receive their stipend.
6. Teacher must attend all 4 days of Saturday in-person workshops (these happen during the school year) and all 3 days of Phase 4 PD.

If you have a schedule conflict email pd@code.org and notify your district contact as soon as possible.

Exceptions to this policy include districts where Saturday workshop participation is voluntary per union regulations.

Communications

Who will PD e-mails come from?

You can expect emails from **pd@code.org** providing workshop and online activity information, surveys to help us improve PD as well as monthly newsletters.

Who do I contact with questions?

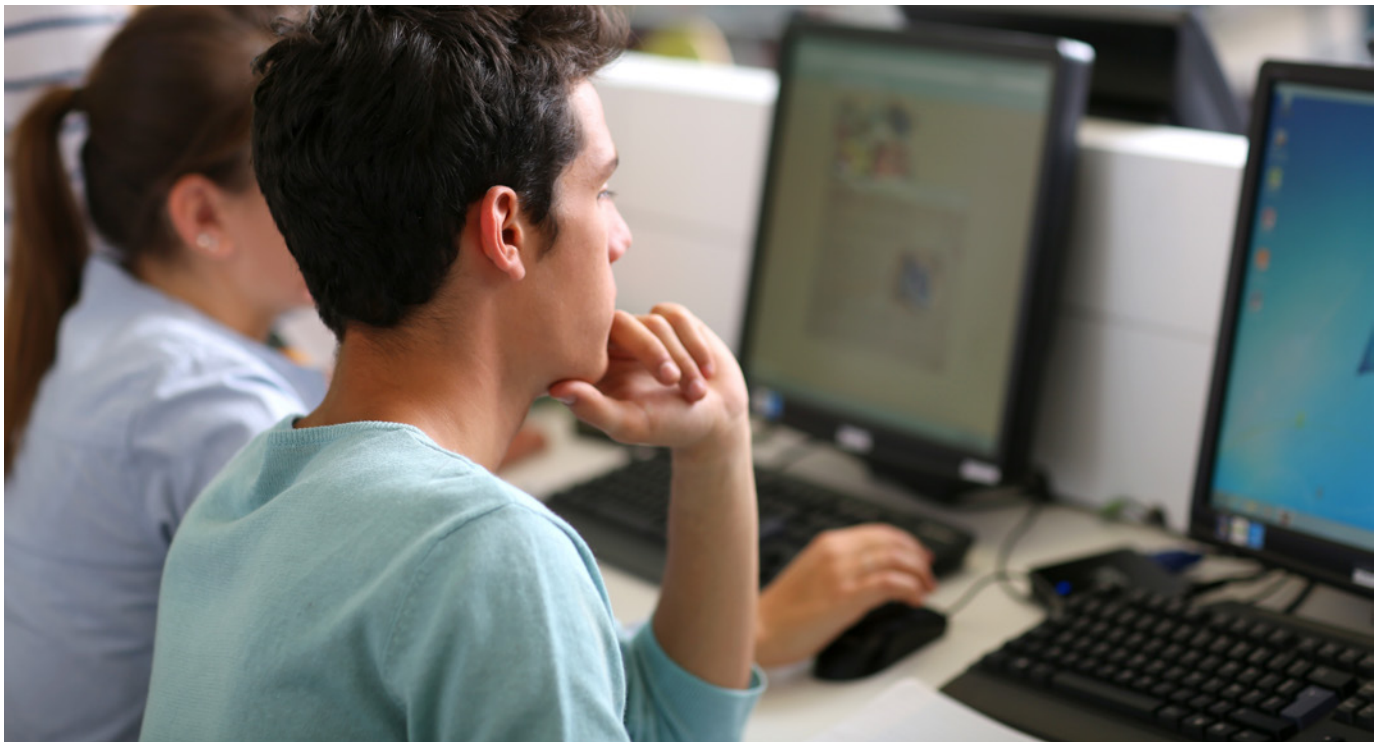
For any questions please contact **pd@code.org.** You can expect a response within 48 hours during our business hours (Monday-Friday 9am - 5pm PST).

Frequently asked questions

Will Code.org reimburse me for parking fees?	No, Code.org does not cover parking expenses and encourages participants to use public transit options in their city.
What if I am no longer teaching the course in the Fall, can I still attend PD?	Our general rule is you will not go through PD with a stipend unless you are teaching, but please contact your district to discuss further.
What supplies do I need to teach the course?	Visit **code.org/ecs-supplies** for items needed to effectively teach Exploring Computer Science.
What are the minimum tech requirements?	White-list Code.org for access. Computers must have online connectivity at a minimum of 10MB/sec and modern browsers (IE9+, or Firefox, Chrome, Safari, Mobile Safari, Android tablets).

Helpful links

- Professional Development Philosophy: **code.org/educate/professional-development-philosophy**
- Exploring Computer Science Supply List: **code.org/ecs-supplies**
- Exploring Computer Science One Pager: **code.org/ecs-at-a-glance**
- Exploring Computer Science Curriculum: **exploringcs.org/curriculum**. (Note: *You will receive a printed version during phase 2.*)
- Exploring Computer Science Alignment to Common Core: **code.org/ecs-alignment**



Do you know a K-5 teacher?

Invite them to attend Code.org's free Professional Development for elementary school teachers!

High-quality, professional development workshops, free of charge

Code.org is hosting no-cost, one-day workshops for K-5 educators interested in teaching computer science. Workshops will cover courses 1-3 and offer supplies needed to teach the courses.

For details, visit **Code.org/k5** or send them this **one-pager.**

Thousands of teachers have participated. They rate our workshops 4.8 on a 5 point scale. The majority say, "It's the best professional development I've ever attended."

"I can't think of anything that would improve this workshop. The workshop facilitator was very professional. This is by far the BEST workshop I've ever attended!"

"This will totally change my curriculum. I love how the lessons are prepared and aligned to the Common Core and Next Generation Science Standards."