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**WeTeachCS: Effective Strategies**  
*Inclusive and Effective teaching*

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# Welcome!

## Kate Woodward Young

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- Kate holds a Masters in Instructional Technology with an emphasis on non-traditional programming options. In 1999, Kate authored the first Girl Scout software skills curriculum to give the girls “The Edge” today and tomorrow. She started teaching robotics and coaching all girls teams in 2000. Kate’s outreach has been diverse encompassing rural, suburban and urban communities throughout Texas and nationally with a strong cross-cultural component especially working in the Latina, African American, as well as in gender specific and the LGBTQ communities.
- For 20+ years, Kate has been an advocate and trainer in STEM.. The first STEM PD she led was in 1998, computer network development for teachers.

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## About the course

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- This course is designed to support computer science teachers in implementing effective strategies for recruiting, retaining, and teaching students who are traditionally underrepresented in computer science.

By enrolling in this course, learners will have taken an important step in ensuring their computer science teaching and programming is equitable and inclusive for all students, regardless of their ethnicity, socioeconomic status, or gender preferences.

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This course was designed to support learner's efforts, as a computer science teacher or related stakeholder, in developing the insight, resources, and skills to move computer science education into the forefront of their school and communities' educational system. Further, they will gain an understanding of the factors influencing how and why we must reach the students that need computer science the most.

Today with less than 13% of minority students entering the computer science/technology field and only 24% of the computer science workforce being made up of women, we must look to our educators, on the frontlines, to help make computer science education and career paths a priority.

As learners move through the course, they will not only define equity, but also learn about how computer science and computational thinking can be a vehicle for

exploring issues of personal relevance and social justice for students in their school.

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## *Why teach computer science?*

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- Assign each small group a stakeholder group -
- Students Non CS TEachers Guidance Counselors
- Administrators School Board Parents Business Community
- Give participants 3 to 5 minutes to brainstorm 3 positives and 3 negatives, encourage them to use short phrases or single words like - budget, etc.

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# *What the heck is equity, inclusion and all that stuff*

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- Equity -- the quality of being fair and impartial.
- Inclusion - the action or state of including or of being included within a group or structure.
- Social Justice - justice in terms of the distribution of wealth, opportunities, and privileges within a society.
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# And then there is the teacher

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- **What do I bring to the tech table? Biases, beliefs & complete bunk – self assessment tool 7 – 10 min.**

- **What does bias/inequity look like – PP/discussion 5 min.**

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Equity does not mean the same for everyone, it means equality in access, a leveling of the playing field by providing people with opportunity without stereotypes, judgement, or biases. When we allow misconceptions to dictate our educational agenda we cannot hope to fully embrace the individual needs, interests, and abilities of our students. Think for a moment what biases or beliefs affect your school, environment, and community.



- Race IAT** *Race ('Black - White' IAT).* This IAT requires the ability to distinguish faces of European and African origin. It indicates that most Americans have an automatic preference for white over black.
- Gender-Career IAT** *Gender - Career.* This IAT often reveals a relative link between family and females and between career and males.
- Sexuality IAT** *Sexuality ('Gay - Straight' IAT).* This IAT requires the ability to distinguish words and symbols representing gay and straight people. It often reveals an automatic preference for straight relative to gay people.
- Age IAT** *Age ('Young - Old' IAT).* This IAT requires the ability to distinguish old from young faces. This test often indicates that Americans have automatic preference for young over old.
- Weight IAT** *Weight ('Fat - Thin' IAT).* This IAT requires the ability to distinguish faces of people who are obese and people who are thin. It often reveals an automatic preference for thin people relative to fat people.
- Disability IAT** *Disability ('Disabled - Able' IAT).* This IAT requires the ability to recognize symbols representing abled and disabled individuals.
- Arab-Muslim IAT** *Arab-Muslim ('Arab Muslim - Other People' IAT).* This IAT requires the ability to distinguish names that are likely to belong to Arab-Muslims versus people of other nationalities or religions.
- Gender-Science IAT** *Gender - Science.* This IAT often reveals a relative link between liberal arts and females and between science and males.
- Presidents IAT** *Presidents ('Presidential Popularity' IAT).* This IAT requires the ability to recognize photos of Donald Trump and one or more previous presidents.
- Religion IAT** *Religion ('Religions' IAT).* This IAT requires some familiarity with religious terms from various world religions.
- Skin-tone IAT** *Skin-tone ('Light Skin - Dark Skin' IAT).* This IAT requires the ability to recognize light and dark-skinned faces. It often reveals an automatic preference for light-skin relative to dark-skin.
- Asian IAT** *Asian American ('Asian - European American' IAT).* This IAT requires the ability to recognize White and Asian-American faces, and images of places that are either American or Foreign in origin.
- Weapons IAT** *Weapons ('Weapons - Harmless Objects' IAT).* This IAT requires the ability to recognize White and

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**What does bias/inequity look like**

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# Recruiting against the odds

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What has worked for you?

TIPS

- **Once you identify the type of students who are not in your program.**
- **Go find them**
- **Are they in other AP classess -- that is low hanging fruit**
- **Do they need a “step” to your class -- club, hour of code,**
- **The 3 F’s -- Friends, Family, Food**
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# Retention

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- **Retention**

- The Geena Davis Institute on Women in Media “If she can see it, She can be it.”

The website [www.seejane.org](http://www.seejane.org)

- When designing an “GI” lesson plan – remember that “GI Jane” is more than seeing and believing. It has as much to do with WHY vs “Y”. She wants you to engage with her on why she should learn this skill. Not “how”.



Giving Girls The Edge

[www.facebook.com/GivingGirlsTheEdge](http://www.facebook.com/GivingGirlsTheEdge)

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- Facebook group for STEM initiatives and resources for Girls

## Class starts 3/19 – Sign up today

UTaEi Professional Development  
The University of Texas at Austin Center for STEM Education

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<https://utakeit.stemcenter.utexas.edu/effective-strategies-r01w2018/>

## Strategies for Effective and Inclusive CS Teaching (Winter 2018)

Teachers will gain the insight, skills, and strategies to create equitable computer science programs, inside and out of the traditional classroom, as a stepping stone to achieving social justice.

Enroll – \$149

### About this Course

The purpose of this course is to support your efforts as a computer science teacher or related stakeholder, to develop the insight, resources, and skills necessary to move computer science education into the forefront of your school and communities' priorities. Completing this course will give you the understanding and methodology necessary to evolve your computer science teaching, both content and pedagogy, and to be equitable and inclusive for all students - regardless of their ethnicity, socioeconomic status, or gender preferences. In addition, you will gain an understanding of the factors influencing how and why we must reach the students that need computer science the most.

Since the content addresses sensitive topics on equity, diversity, inclusion, prejudice, and social justice, the course makes use of a combination of online content and activities, interactive discussion boards, and supplemental live meetings (in person or online) with your own Professional Learning Cohort. This creates opportunities to share thoughts, feedback, and constructive criticism in a format that is most comfortable for you. Further, the course uses "in the field" activities, such as classroom observation and practical implementation, to enhance the learning experience and ensure your ability to apply the concepts and techniques throughout the course. Each participant will complete the course by producing a working action plan as culmination of the learning experience.

Course Start Feb. 12, 2018	6.0 weeks	4 hours per week	24.00 CPE hours available

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## **NOTE FROM: Dr. Carol Fletcher**

If you are interested in participating in a google grant to increase your female student participation in CS.

[carol.fletcher@utexas.edu](mailto:carol.fletcher@utexas.edu)

We Teach CS has helped Texas increase under represented populations in the last 5 years.

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