### Satisfying Tennessee's HS Computer Science Graduation Requirement with Kira Learning

April 18, 2024



## **Facilitators**



**Rick Gaston** 

Dir. of Teaching & Learning

Kira Learning











**Chelsie Sells** HHS STEM Coordinator & Kira CS Teacher Blount County School System



### Agenda

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- 1. Who is Kira Learning?
- 2. TN CS legal requirements for HS
- 3. TN HS course options
- 4. HS course scheduling models
- 5. Kira platform and HS content overview
- 6. Kira HS teacher resources
- 7. Experiences of pilot teachers and students with Kira Intro to CS (Python) course
- 8. Next steps Staying in touch with this community



### **Kira Learning Team**



Dr. Andrew Ng Chairman

Andrea Pasinetti CEO, Co-Founder

Chairman and Co-Founder of Coursera, Adjunct Professor at Stanford University. Founded and ran one of China's largest and most impactful education non-profit organizations -**Teach For China.**  Developed automation software for the Mars 2020 rover mission at NASA JPL in the Artificial Intelligence Group.

Jagriti Agrawal

Co-Founder, VP of AI



Rick Gaston Dir. of Teaching & Learning



Sarah Stern Dir. of Customer Success



Cristina Herndon Sr. Customer Success Manager, Western Tennessee



Molly Mulhern Customer Success Manager, Eastern Tennessee

### About KIRA LEARNING

Kira Learning is an education technology company founded in 2021 with the aim of using AI to empower everyone to learn computer science.



#### Our Vision

Kira Learning prepares learners for the Computer Science careers of the future.

We are building the content, tools, and support to empower anyone to teach or learn AI & CS.

### Kira in Use

#### Tennessee

### Singapore

Maryland

Ohio

#### New York



Togo

#### Vietnam



# **TN CS Legislative Updates - Becky Ashe**

- <u>CS Ed Law (HB2153/SB2406)</u> passed 5/3/22, unanimous in both branches
- <u>HB2242</u> 4/11/24 signed by Gov Lee
- TN's K-12 CS Framework, adopted 2022



# **School Questions for Legislative Compliance**

- Out of the <u>14 courses</u> (listed on pg 2) approved to meet the Graduation requirement beginning with next year's freshmen cohort, which do you already teach?
  - How many students with your current schedule would meet the requirement?
  - Do you have capacity to meet the requirement with the current schedule? Do all your current students have the opportunity (if they wished) to take at least one of the 14 classes?
- Based on your population and pipeline feeding you, is it practical for you to plan for students to meet the requirement in freshman/sophomore year?
  - What does your capacity look like to meet the demand if more students take CS early and want advanced classes?
  - If you schedule the requirement early, how might you manage transfer students after those early grades?

# **Curricular Decisions**

Once you decide which course, here are curricular options

- Computer Science G10H06
  - Kira completely aligns
  - Code CS Discoveries mostly aligns
- Coding I C10H14
  - Kira aligns AND qualifies for PCEP (Python) industry certification (Tier 2 ready graduate points)
- CS Foundations C10H11 (Gr. 9)
  - Kira mostly aligns
  - Code.org CS Discoveries mostly aligns

## **Other Considerations**

- Funding implications
  - CTE vs. "academic" course choice
- $\circ$   $\,$  Who is eligible to teach the HS CS course?



# **HS Course Scheduling Models**

- Duration: 1 year
  - Meet every day
  - A/B rotation
- Duration: 1 year
  Skinny Sections
- Duration: 1 semester
  Meet every day



# **HS Course Pacing Models**



- Flexibility supports teacher choice and student differentiation
- Options:
  - Teacher keeps whole class together on lesson level
    - Pros: Supports whole-class instruction and cooperative learning
    - Challenges: Some students may desire faster or slower paces
  - Students work at their own pace
    - Pros: Supports student choice
    - Challenges: Whole-class instruction on common topics difficult

### Kira Intro to CS Course Overview

- Kira's Intro to CS course was designed specifically to satisfy the new Tennessee high school state CS requirements!
- <u>Curriculum Guide</u>
- Course also has been endorsed by College Board to serve as AP Computer Science Principles

### **Course Pacing**

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
10 hrs*	11 hrs	13 hrs	9 hrs	11 hrs	<b>22</b> hrs	4 hrs	7 hrs	20 hrs

\*Times include:

- 38 Total Lessons
- Kernels of Curiosity
- Mini-Projects
- Unit Assessments
- Midterm Exam
- Final Project
- Final Exam

## Kira Intro to CS Curriculum at a Glance

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Unit 1	Fundamentals of Communicating with a Computer		
Unit 2	Decision-Making with Computers Using If-else Statements		
Unit 3	Expanding Capabilities with Functions and Libraries		
Unit 4	Storing Data with Lists		
Unit 5	Repetition and Iteration with Loops		
Unit 6	Storing Data with Dictionaries		
Unit 7	Creating Custom Data Types		
Unit 8	Data Analysis Life Cycle		
Unit 9	Data Visualization		

## **Kira Platform Overview**

- Navigation
  - Teachers can lock lessons for whole-class pacing
- Videos
- Practice exercises
- Summative assessments
- Gradebook
- Al Tutor
- NOTE: Deeper dive on all new Kira platform updates at May 2 webinar

### **Kira Teacher Resources**

- Curriculum Guide
- Lesson plans (example from U1L2)
- Lesson slides (example from U1L2)
- <u>Guided notes</u> for each lesson (example from U1 L1)



## **Kira Pilot Teacher Experiences**



## Dr. Andy Hebert

Maryville, TN STEM and Kira CS Teacher

## **Kira Pilot Teacher Experiences**



#### **Chelsie Sells**

Blount County School System HHS STEM Coordinator and Kira CS Teacher

# **NEXT STEPS**



### **Upcoming Webinars**

#### Piloting Kira's Middle School Course after TCAP

Thursday, April 25, 4-5pm CT <u>Register Here</u>

Sneak Peek: Exciting Kira Product Updates for the 2024-25 School Year! Thursday, May 2, 4-5pm CT Register Here



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### **TSIN CS Accelerator Week: Kira PD Sessions**

- July 8-12 Middle Tennessee State University, Murfreesboro
- Read more details on Accelerator Week <u>here</u>
- Kira is offering three workshops:
  - Middle School (grades 6-8)
  - High School (grades 9-12)
  - AP CS Principles (grades 9-12)
- <u>Register here</u>



### **District + School Leaders**

Need support in figuring out what a district or school-wide implementation could look like for your districts and schools, including integration needs?

Would you like to learn more about Kira's professional development opportunities this summer to support your teachers' adoption of the Kira Learning courses?

#### **BOOK A MEETING WITH US**



Cristina Herndon Sr. Customer Success Manager Western Tennessee

meetings.hubspot.com/cristina-herndon



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Molly Mulhern Customer Success Manager Eastern Tennessee

meetings.hubspot.com/molly-mulhern

### **Teachers**

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1 Create an account at: <u>kira-learning.org/signUp/teacher/</u>

Join our Facebook professional community at: <u>facebook.com/groups/kirateachers</u>



## Thank you for your participation!

Further questions? Email us <a href="mailto:support@kira-learning.com">support@kira-learning.com</a>



