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## Computer Science Education Advisory Commission Meeting

February 1, 2023

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# Agenda

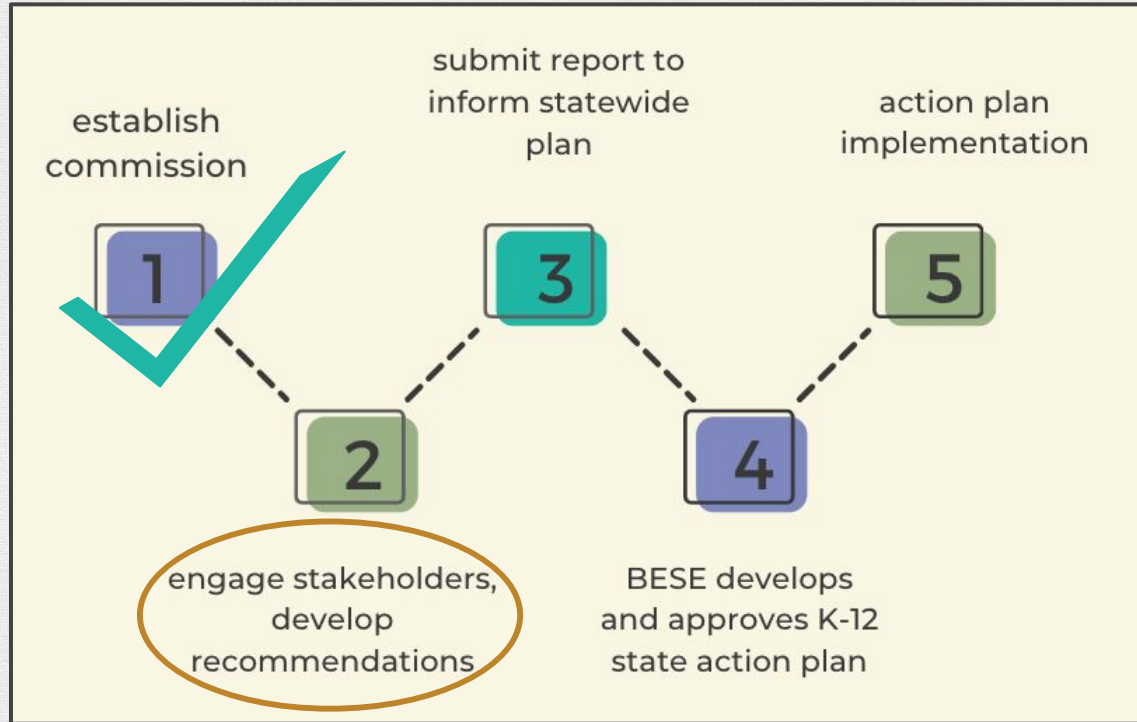
- I. Call to order
- II. Roll Call
- III. Approval of Minutes from October 27, 2022
- IV. Consideration of Status Report from Stakeholder Feedback
- V. Consideration of an update report regarding current computer science teacher certification guidelines
- VI. Consideration of a proposal for a framework for a computer science certification endorsement
- VII. Adjournment

**Vote to approve the minutes  
from October 27, 2022**

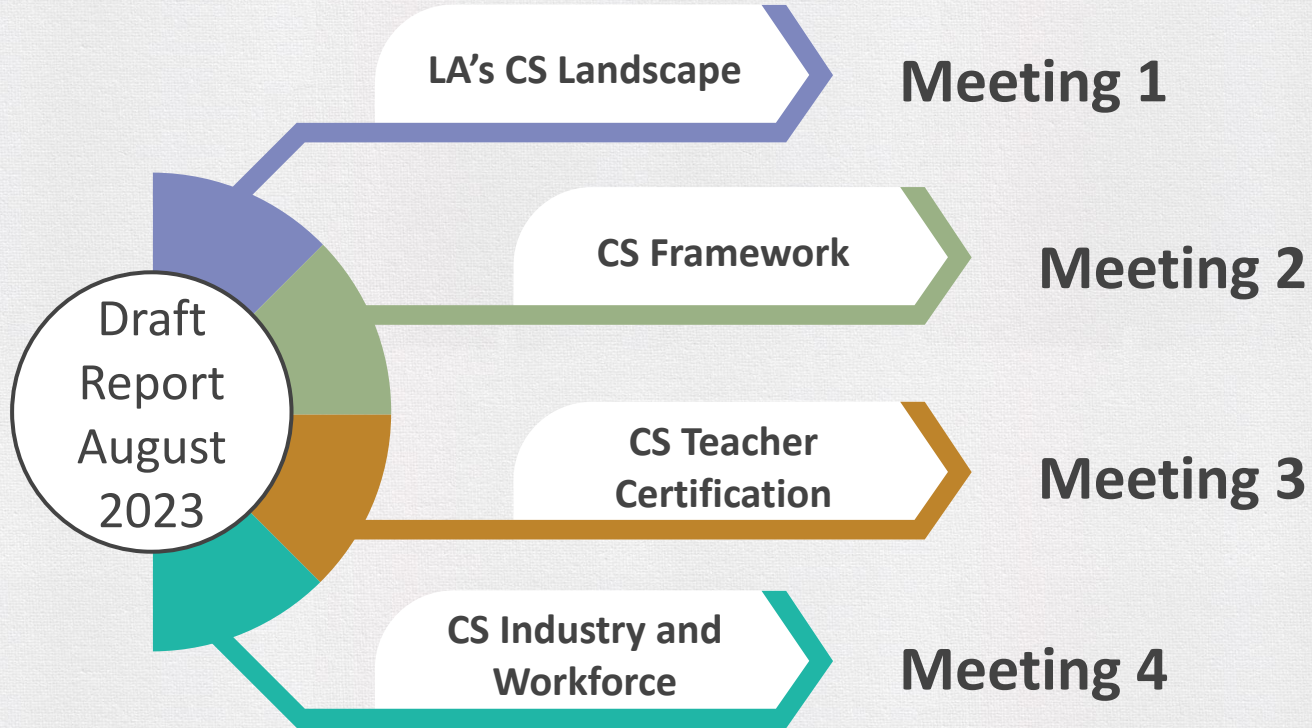




# CS Education Advisory Commission Roadmap



# Developing The Components of a Draft Report



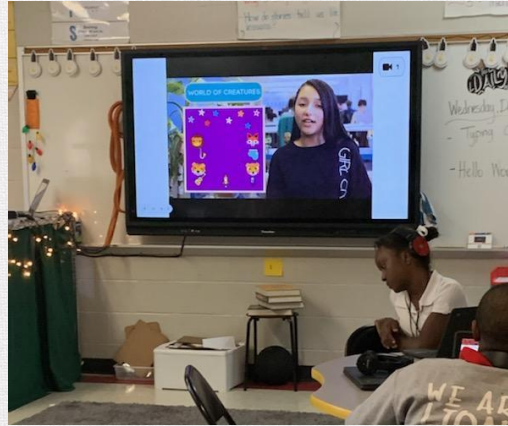


# Consideration of Status Report from Stakeholder Feedback



# CS ED Week 2022!

December 5-9 students across Louisiana participated in a week of CS exploration!



"It allows me to pursue a career after school that would normally take me more preparation time after graduation."

Hayden St. Amant  
North DeSoto High School



**Computer Science Education Week**



"It is a way to challenge myself within the classroom and my everyday life."

Alexander Randall  
Kenilworth Science & Technology School

**Computer Science Education Week**





# Code.org honors Computer Science Leaders

On December 2, 2022, two schools were awarded \$10,000 by Code.org in Louisiana to fund CS and coding course expansion!

New Orleans Charter Science & Mathematics High School in New Orleans

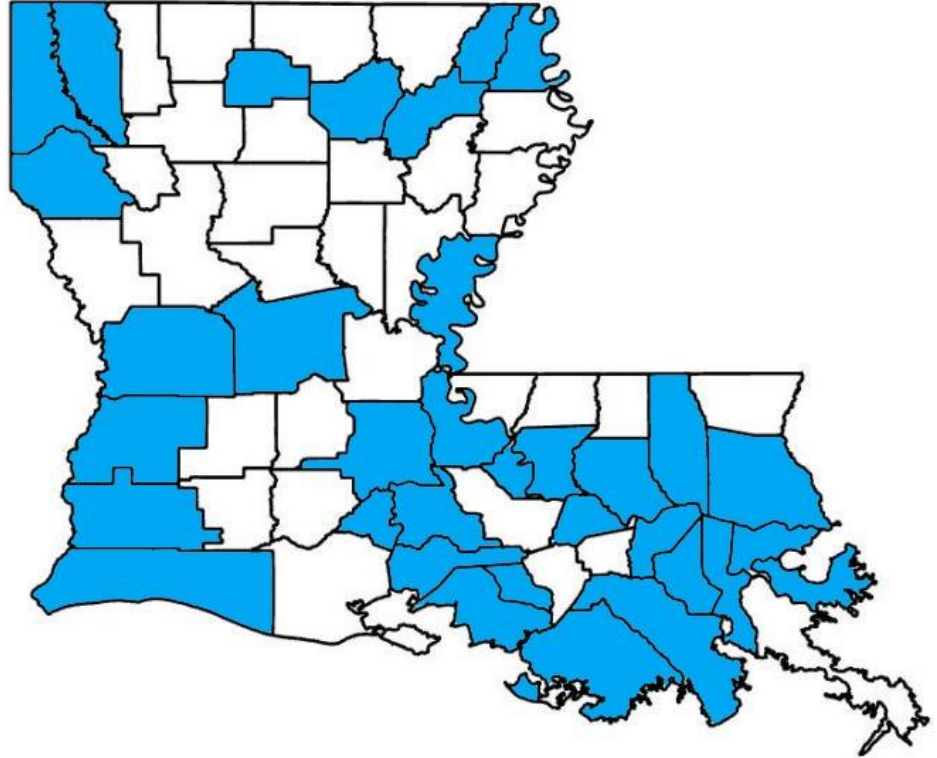
South Beauregard High School in Longville





# CS Listening Sessions

- Beginning in August 2022, the Department engaged with individual stakeholders in **34** of the 64 parishes in the state.
- The Department gathered stakeholder feedback on the LA CS Framework, teacher certification options, CS courses, and IBC offerings.





# January 2023 Listening Sessions Data

Summary of feedback gathered during the January Listening Sessions about the 5 Core Concepts and 7 Core Principles from the National K-12 Computer Science Framework

- participants viewed topics favorably
- all participants expressed a strong desire to ensure educators receive CS content training
- participants recognized relevance to careers and future life skills needed by students

Review the feedback gathered from participants in parts I and II of the Feedback Summation document. Notate any important takeaways from the data.



# January 2023 Listening Sessions Data

Overall, teacher feedback on attaining CS certification coalesced around these three points:

1. Computer science certification should be funded to incentivize teacher engagement.
2. Professional learning needs to cover computer science content with enough depth to prepare teachers to understand and deliver it to students.
3. Certification and training need to be offered in a way that is time efficient.

**Vote to receive the Status Report from  
Stakeholder Feedback**





**Consideration of an Update Report  
Regarding Current Computer Science  
Teacher Certification Guidelines**



## Bulletin 746

# General Teacher Certification Requirements

According to Bulletin 746, **all** Louisiana teachers must meet criteria A through D below to obtain certification.

- A. Successfully complete an undergraduate (traditional) or post baccalaureate (alternate) teacher preparation program
- B. Complete student teaching, residency, or internship
- C. Pass Praxis II Specialty (content) exam
- D. Pass Praxis II Principles of Teaching and Learning (PLT) exam
  - a. Out-of-State completers have options in lieu of the required exams if they have teaching experience



# Louisiana's Current Computer Science Certification

1. Complete **30** computer science (content) semester hours from a college or university if no content exam is adopted; only **4** universities offer this option statewide
2. Take an additional **21** hours of computer science college level content; a bachelor's degree in computer science currently requires **24** content hours
3. Add to Louisiana teaching license through a PRAXIS II subject area exam
4. Mathematics 6-12 certified teachers can teach the state courses of Computer Science 1 and Computer Science 2
5. Louisiana STEM Pathways Computing and/or Cybersecurity teachers must complete provider training course
6. Current alternative certification programs are aligned to ISTE Standards; **4** providers in Louisiana who only service teachers in grades 6-12

**Vote to receive the report regarding  
current computer science teacher  
certification guidelines**





**Consideration of a proposal for a  
framework for a computer science  
certification endorsement**



# Computer Science Teacher Certification

The commission is tasked with providing guidance on Computer Science certification for:

- Computer Science Grades K-5;
- Computer Science Grades 6-12;
- Alternative Teacher Certification Programs for Computer Science;
- Pre-service University Computer Science Teacher Preparation Programs;
- Louisiana STEM Pathway Computing and Cybersecurity course authorizations; and
- Advanced Placement and International Baccalaureate Computer Science course authorizations.



# K-5 Certification Factors To Consider

- [Act 108](#) requires K-5 educators to complete a training in a foundational literacy skills course and training time varies depending on school system selected provider (~100 hours)
- [Act 569](#) requires that no new professional development requirement may increase uncompensated training unless
  - a current required training is eliminated **OR**
  - a provision is made for the teacher to be compensated and not participating in local professional development activities.
- The commission's recommended framework and data from K-5 teachers in listening sessions supported embedding computer science within the K-5 math and science lessons.



# Adding Computer Science Certification Grades K-5

- Recommendations:
  - Utilize a micro-credential portfolio in computer science along with cohort collaboration for current K-5 teachers and media specialists.
  - Direct the Department to collaborate with university teacher certification program providers, computer science experts, and an appropriate vendor to develop and define portfolio components, evaluation process, and required professional learning materials to support micro-credential attainment.
  - Provide funding guidance for:
    - compensation for teachers as they engage in professional learning for training
    - first attempt to earn the micro-credential



## 6-12 Certification Factors To Consider

- [Act 569](#) requires that no new professional development requirement may increase uncompensated training unless
  - a current required training is eliminated **OR**
  - a provision is made for the teacher to be compensated and not participating in local professional development activities.
- Currently, the only mechanism to add a computer science certification is with a bachelor's degree or 21 college hours in computer science.
- Teachers providing content aligned to prepare students for an industry based certification (IBC) must carry the IBC (Bulletin 746 §1107).



# Adding Computer Science Certification Grades 6-12

- Recommendations:
  - Utilize the Praxis II Computer Science content exam (5652) **OR** a micro-credential portfolio to allow teachers to
    - add on to their Louisiana certification in Computer Science
    - teach Computer Coding as a World Language
  - Provide funding guidance for
    - teacher professional learning
    - a first attempt at the Praxis II Computer Science content exam (5652) **OR** a first attempt to earn the micro-credential
    - a first attempt at the IBC exam



# Computer Science Alternative Certification

- Recommendation:
  - Utilize the following for Alternative Teacher Certification Programs in Computer Science:
    - the previously approved Louisiana Computer Science framework
    - future Louisiana Computer Science standards



# Pre-service University Computer Science Teacher Preparation Programs

- Recommendation:
  - Align the standards for initial teacher certification with a Computer Science endorsement to the Louisiana Computer Science Framework and future Louisiana Computer Science Standards.



# Louisiana STEM Pathway Computing & Cybersecurity Course Authorizations

- Recommendations:
  - Continue to allow any certified teacher to successfully train and teach the pathway, provided the course remains unchanged
  - Encourage the STEM Pathway providers to align their trainings and content to the Louisiana Computer Science Framework and future Louisiana Computer Science Standards
  - Encourage STEM Pathway certified teachers to pursue a 6-12 Computer Science Certification




# Advanced Placement/International Baccalaureate Computer Science Course Authorizations

- Recommendations:
  - Require teachers teaching AP Computer Science Principles or AP Computer Science to successfully complete the approved College Board training program and have a 6-12 Computer Science certification endorsement
  - Require teachers teaching the International Baccalaureate Computer Science courses to successfully complete the approved International Baccalaureate program training and have a 6-12 Computer Science certification endorsement



# Commission Recommendation Review

We are now going to use a Google Document to collaborate and comment on the proposed certification recommendations from the LDOE.

1. Type [bit.ly/cseac](https://bit.ly/cseac) into any browser bar. It will take you straight to the Google Doc.
2. You are in commenting mode. This will allow you to add and edit comments on the document in real time. We can also see these on the main screen.
3. Click the  icon at the top of the screen to add a comment.
4. We will take 10 minutes to review and make any last adjustments (via comments). You may react and comment on others' posts.
5. We will discuss the comments on each recommendation in order.

**Vote to receive the proposal for a  
framework for a computer science  
certification endorsement**





# Revisiting Our Meeting Timeline

August 3, 2022	October 27, 2022	February 1, 2023	May 3, 2023	August 2, 2023	October 4, 2023
Alignment	Framework	Teacher PL	Post 12 & Funding	Report Draft	Finalize Report
research		analyze findings			
		draft recommendations		finalize report	BESE receives December 13, 2023
ongoing stakeholder engagement					

# Meeting Schedule

Date and Time	Meeting and Location
August 3 1:30 p.m.	Meeting 1 Claiborne Building, Baton Rouge
October 27 1:30 p.m.	Meeting 2 Claiborne Building, Baton Rouge
February 1, 2023 1:30 p.m.	Meeting 3 Claiborne Building, Baton Rouge
May 3, 2023 1:30 p.m.	Meeting 4 Claiborne Building, Baton Rouge
August 2, 2023 1:30 p.m.	Meeting 5 Claiborne Building, Baton Rouge
October 4, 2023 1:30 p.m.	Meeting 6 (Finalize report draft for BESE) Claiborne Building, Baton Rouge
December 13, 2023 TBD	December BESE Meeting Claiborne Building, Baton Rouge



**Vote to Adjourn**





# Adjournment

Email [ashley.townsend@la.gov](mailto:ashley.townsend@la.gov) with questions.