



Using the ACM Model Curriculum for K-12 Computer Science to Support Professional Practice

In a recent Member Satisfaction Survey, we asked CSTA members to tell us if and how they have been using the ACM Model Curriculum for K-12 Computer Science. Here are the direct quotes from our members, organized by use.

Curriculum Design

- Construction of new GA State Curriculum in Computing
- I served as a consultant on the Georgia Department of Education Computer Science curriculum committee. The ACM Model was used as a guide for our high school curriculum
- In development of the state of NH competencies for computer programming vocational programming
- At our next meeting, the Diocese of Venice in Florida is considering using the Model Curriculum to create C.S. education standards for both elementary/H.S.
- I am trying to help the Fredericksburg Virginia School District develop a curriculum that would satisfy the Virginia Standards of Learning Exam and at the same time follow Curriculum for k-12
- One of the strands or our middle States work is technology. It is confirming what we require of our students and when in our curricula we require it.
- Distribution to the local K-12 public school district for implementation (currently under review)
- Used as resource in writing state curriculum for a computing pathway
- Used as input into the development of a national curriculum for South African schools
- As a reference and support for advocating developing a national CS curriculum in Taiwan
- I am working out ways and means to implement it in Indian situations. It was very useful professionally Thanking you
- We rewrote the Curriculum for 2 year college to make it easier for students to transfer to 4-year school. Used guidelines in what topics to offer in each core class
- I am using ACM model as template for me and I am trying to implement its maximum features relevant to my curriculum
- As a guide, we are currently adopting some of the curriculum suggestions into our own curriculum
- To write a new curriculum for 8 - 12.

- Introduced a computer science I class at the high school level
- Implements in high school for 5th to Xth
- I was able to use some at the beginning of the year. Further into the year our technology (outdated) was improved and I found that what I had learned did help me help the kids
- Our school is modeling our curriculum on this document
- To help write a course description for a new Java programming course that we started this year at Holland High School
- Used to develop a middle school curriculum
- I am working on implementing ideas and using it as supporting material
- I used it as a guide to setting the curriculum at my institution
- My school is looking to overhaul their technology curriculum from K-12. I have suggested the ACM model curriculum to my task force that is in charge of curriculum.
- Used in building my courses
- Hope to use parts of it in a general course on Computer Science -- depending on my district.
- Writing new curriculum & writing school technology plan
- To plan curriculum
- Yes. Development/modification of current curriculum.
- To assist with HS curriculum decisions
- To define our curriculum

Curriculum Review/Modification:

- I am working on our districts k12 mathematics curriculum committee and trying to integrate ideas into the earlier grades to increase student's problem solving skills
- Used as a reference in developing/updating CS curriculum at St. Rose HS
- I have taken bits out of it to incorporate into my CS curriculum at the High School level
- Used it in educational leadership meetings for discussions on revising curriculum
- Extending web programming principles into the Business education curriculum.
- I have used it as a resource for courses and inspiration for the classroom.
- Verify the courses follow the new curriculum. Make adjustments to existing curriculum
- I adjusted my curriculum
- I am currently using the information along with other sources as I realign the K-12 curriculum for my school
- To align standards for creating curriculum since there are no national standards
- We used it for making improvements in our curriculum
- CS Curriculum Revision Committee
- Redesign/align our curriculum
- Using the information in the model curriculum to help determine how to improve our district k-12 technology curriculum comparison with current state AND school implementations

- We are using it as a guideline to reconsider our Junior High and High School Computer Science curriculum
- To confirm & adjust curriculum
- The information as used to cross reference against our local proposed National IT curriculum
- It has helped me think about what I should be doing in K-12 Computer Science
- As a guideline as to what I should teach
- Checked to see how my curriculum aligns with listed criteria
- Appropriate instructional objectives
- I use it to evaluate whether the high school curriculum meets the model curriculum requirements
- Comparing our curriculum map to the ACM standards
- Consistency with AP comp sci
- It has helped me to compare the CS curriculum at the school
- I read through it and looked to see if we line up with it at our school
- I compared and improved my curriculum.

Improving Instruction:

- Found standards that aligned with my curriculum. Used the information to adjust my own teaching practice
- To improve my lessons
- To make sure I was covering what was expected of my courses
- I design outreach activities for K-8 students as part of my school's mission. I have used the model curriculum to help select appropriate activities.
- To make sure I'm teaching to the curriculum
- When teaching computer science, I used the Model to make sure I was including relevant information to my students
- As a first year Computer Science teacher it has helped me judge what to include in my instruction.
- I have used it to make sure I am keeping abreast of current issues and curriculum developments.
- It helps me get an idea of what I should be teaching and what the students should be learning
- I used it when restructuring my curriculum maps
- Help me build a 3D Game Animation curriculum
- Helps me with planning, evaluation.
- Lesson Plans in the classroom
- In my lesson plans and curriculum
- Ideas for activities

Advocacy:

- It has been a great resource for us in outreach as well as a good impetus to try to get CS education up to speed in our state
- More to encourage its use in our elementary and middle schools to prepare and encourage kids to try this field

- I used some information to help me recruit minority and female students.
- Used in advising the Administration on our curriculum
- To encourage administrator to develop curriculum in our elementary school
- During meetings on the state educator and business partner level.
- Suggestions for our administrators and suggestions for coursework
- Basis for discussion with school administration.
- As documentation to administrators that Computer Science concepts can and should be taught at lower grade levels.
- I have shown it to the Assistant Superintendent for Curriculum to encourage more and better instruction as it relates to the curriculum for VA SOL's for technology
- I shared it with my administration
- I have given a copy to my curriculum coordinator in hopes that they will continue to support the computer science budget instead of cut it
- I have simply shared it with others in order to prevent the demise of the CS program in our area
- Shared with District level administration for vertical articulation
- In meeting with administrators and for planning purposes
- Basis for more computer classes
- I shared it with the Director of Mathematics at my school, who is also in charge of our Computer Science curriculum. I also shared it with the Superintendent for Instruction and Technology. I used it to make the case that we should change our Freshman required computer course (half year) to provide a small introduction to programming.
- I gave our administrators a copy
- Passed it on to county administrators
- Introduce it to professor and students in Korea. We are now developing more materials for it.

Planning Resource:

- I used the info when writing the scope and sequence of our technology courses for our school
- Developing lesson plans
- I have referenced it for my overall lesson planning
- I used it to help me plan my syllabus.
- In development of materials to deliver online training to high school students
- Local planning of curriculum
- Justify concepts and algorithms taught in class
- As a framework to prepare my lessons and units
- developing content standards and objectives for courses
- I was formerly the head of CS education for a university and used it in my methods course. I have just started looking at the new version as I recently re-entered the HS teaching ranks
- Shared with colleagues; given to folks who are starting up programs

Reference:

- Being a faculty in computer engineering I find these matter and techniques very useful and they add extra edge to my teaching
- As a source of information to the CS department at CMU
- Information helps me to design the curriculum for various undergraduate, graduate and post graduate courses.
- As example/reference during curriculum development meetings
- I used it as a reference in my master's project
- Included it in my syllabus
- To set syllabi for First Year Under Graduate courses
- We have an ACM student chapter here and discuss all related problems and its solution for this and hence proceed with respective manner
- I've referenced it in papers and used it in grant applications
- A reference in my master's thesis and as a reference in a presentation to our counseling dept
- To know the entry level ((prerequisites) for computer science college
- Used it in several papers towards my Master's. Also use it to support my curriculum
- Help define curriculum, set standards in K-12 schools.
- Help look into the future

Teacher Certification:

- Research for initiating a CS endorsement for Teachers
- To help develop the Competencies and Skill Sets for the Florida Teacher Certification Examination in K12 Computer Science. To help establish an acceptable computer curriculum for my school district
- I used the recommended IT certification
- Review of Curriculum for academic accreditation