



**CSTA-Oracle Academy 2014 U.S. High School CS Survey:  
*The State of Computer Science in U.S. High Schools: an Administrator's Perspective***

**Methodology:**

The Computer Science Teachers Association (CSTA), in collaboration with Oracle Academy, administered an online survey to over 20,000 Public and Private 9–12 secondary school Principals and Vice Principals in the United States between May and September of 2014. The purpose of the survey was to identify computer science education opportunities that are being provided at the high school level, determine how broadly CS is being offered in the US, and determine the different ways CS was being defined in the schools. Surveys were also sent to administrators across the United States using contact information provided by a market data company. A total of 503 people responded to the survey. The results below represent the percentages and averages for those who answered each question.

**Results:**

**1. School location information**

<b>State</b>	<b>Number of Responses</b>	<b>Percent of overall responses</b>
CA	35	.07%
PA	34	.068%
NY	31	.062%
WI	26	.052%
TX	25	.05%
MI	22	.044%
OH	20	.04%
MA	19	.038%
IN	17	.034%
IL	14	.028%
MN	14	.028%
WA	14	.028%
CO	13	.026%
KY	13	.026%
OK	13	.026%
OR	12	.024%
MD	11	.022%
NJ	11	.022%
VA	10	.02%
KS	9	.018%

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AL	8	.016%
CT	8	.016%
UT	8	.016%
AR	7	.014%
AZ	7	.014%
GA	7	.014%
IA	7	.014%
LA	7	.014%
NE	7	.014%
NM	7	.014%
MT	6	.012%
NH	6	.012%
ME	5	.01%
NC	5	.01%
SC	5	.01%
SD	5	.01%
FL	4	.008%
MO	4	.008%
WV	4	.008%
DE	3	.006%
ID	3	.006%
TN	3	.006%
AK	2	.004%
MS	2	.004%
ND	2	.004%
NV	2	.004%
RI	2	.004%
DC	1	.002%
HI	0	0%
VT	0	0%
WY	0	0%

**2. OPTIONAL QUESTION: Please only provide your contact information if you wish to be eligible for the raffle.**

N/A

**3. How many students attend your school?**

1-100	5.2%
101-250	16.6%
251-500	25.4%
501-1000	24.4%
1001-2000	23.4%

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2001+

5.0%

**4. Which of the following best describes your school?**

Rural	41.8%
Suburban	40.4%
Urban	17.8%

**5. How would you describe your student population?**

Majority of the students do not qualify for free/reduced lunch	44.1%
Majority of the students qualify for free/reduced lunch	26.9%
About half of the students qualify for free/reduced lunch	24.6%
None of the students qualify for free/reduced lunch	4.4%

**6. Does your school offer computer science courses?**

Yes	77.5%
No	22.5%

**7. Does your school offer after school or extracurricular programs in computer science?**

No	65.5%
Yes	34.5%

**8. Which department(s) are responsible for the computer science courses? (Check all that apply.)**

Career and Technology Education	53.5%
Business	42.6%
Math	23.5%
Computer Science	18.8%
Science	9.7%
Other*	

**9. How many students take a computer science class each year?**

1-10	13.6%
11-25	13.2%
26-50	21.3%
51-100	19.9%
101-150	9.6%
151-200	10.5%
>200	12.0%

**10. Can students count a computer science course towards a graduation credit?**

Yes 92.0%  
 No 8.0%

**11. If yes, what kind of graduation credit? (Check all that apply.)**

Elective 72.5%  
 Technology 26.5%  
 Computer Science 20.5%  
 Math 12.8%  
 Other 7.2%  
 Science 5.5%

**12. What is your preferred way to receive curriculum and other educational resources?**

Download PPT or other files 69.2%  
 Hosted/In the Cloud 32.4%  
 Standards-compliant files that can be loaded into your school LMS 13.4%  
 Hosted Learning Management System (such as Blackboard) 11.3%  
 Other (please specify)

**13. What percentage of computer science students pursues this following path after high school?**

	2-year college	4-year college	Direct to workforce
0%	9	10	25
1-20%	113	65	66
21-40%	82	68	15
41-60%	33	53	22
61-80%	11	51	7
81-99%	1	71	2
100%	4	48	1

**14. What kinds of computer science and CTE courses do you offer (Check all that apply.)**

Course	Grade 9	Grade 10	Grade 11	Grade 12
Intro Computer Science	208	181	150	142
AP Computer Science	19	57	113	119
Communications/media	79	118	135	131
Computer Graphics	94	156	181	169

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Database development	15	25	40	36
Game Development	40	54	79	79
Networking	18	28	52	49
Programming	94	140	163	164
Robotics	87	108	124	120
Web design and development	123	198	239	233
Other	51	53	58	59

**15. Please list other computer science courses not included above.**

- 3D animation
- 3D programming elective
- A+ Certification
- A+ Network
- A+ Security
- Adobe Photoshop
- Advanced Computer Applications
- Advanced Java concepts
- Advanced Topics in Computer Science
- All sophomores are required to take Intro to Computer Science. Art dept offers a computer graphics class. Business dept offers a web design class.
- Android App development
- Animation
- Any grade can take it. Things checked are not separate courses but are covered in the classes we do offer.
- App Development
- App development and coding
- Applied Technology (9th)
- Archicad
- Artificial Intelligence
- Artificial Intelligence
- AutoCadd
- Basic computer science 7th and 8th grades
- Business and Technology Foundations
- Business Applications
- Business Communications Info Systems Grades 9-12
- Business Information Systems (BIM)
- Business Management
- CAD
- Career Exploration
- CISCO
- Classes are offered with dual enrollment at the community college.
- College computer class

COMPTIA

Computer Aided Drafting

Computer Applications

Computer Illustration/Animation

Computer Layout & Design

Computer Software Applications

Computer Technology

Computerized Accounting

Computers 1 and 2 at the Junior High level

Computing independent Study

Construction Technology

CS Principles

Customer Service

Cyber Forensics

Cybersecurity I & II

DA 106 college course

Design Processes 1 & 2

Designing Mobile Apps

Desktop Publishing

Digital Business Applications

Digital Citizenship

Digital Imaging

Digital Interactive Media

Digital photo and video

Digital Presentation

Document production such as Microsoft products (applications).

Drawing, Design, and Production (CAD)

Dual credit Information Technology

Engineering

Excel

Exploring Computer Science from Code.org

Fashion design

Freshman computers

General Technology class, included an intro to programming among other technology related topics

Graphic Design

Have offered robotics and engineering club

I teach PLTW's CSE with CS Principles pilot

IB SL/HL Computer Science

IBA

Image Editing

In the middle school we teach computers to 7th and 8th graders, introducing a variety of applications. We also offer a Tech Assistant course at the HS where students support staff in troubleshooting all kinds of hardware and networking issues.

Independent Study

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Information Technology  
Informational Technology 1 and 2  
Integrated Technology  
Interior design  
Intermediate Computer Science  
Intro to Communication Technology  
Intro to Computer Programming Using ALICE  
Introduction to Computers  
Introduction to Technology 7th and 8th grade  
IT Essentials Engineering & Design  
Keyboarding  
Keyboarding Grades 9-12  
Linux Clusters  
Microsoft Office  
Microsoft Power Point, Word, and Excel  
Mobile App Development  
Mobile App development  
Mobile App Development  
Mobile App Development for Android  
Mobile Applications Design and Development  
Multimedia  
Network management skills  
Newspaper  
Parallel Programming  
Parallel Programming  
PC Support  
Personal Finance  
PLTW Computer Science  
PowerPoint Design and Presentation Skills  
Pre-AP  
Printshop  
Project Lead the Way - Engineering, Electronics  
Project Lead the way, Auto cad  
Radio 2  
Radio/TV  
Robotics  
Robotics are done in an after-school club  
Robotics is offered as Independent Study  
Robotics is set to be added next year  
Robotics is taught through a club, not a course.  
Science Visualization I offer Game Developers and Robotics Clubs after school  
St. Michael Academy is a blended environment, combining online and real-time courses, not computer science per se, but access/knowledge.  
The computer science classes students take at our high school are through a virtual school (an outside provider)  
Topics in Robotics



Topics in Software Engineering  
 Transportation Technology  
 TV 2  
 VHS Computer  
 Video game programming  
 Video production  
 We are just starting in 2014-15, so I am not totally sure.  
 We are looking to add AP Comp Sci in the next couple of years.  
 We offer Computer Applications I and II  
 We offer PLTW engineering courses  
 We use points and not grades and no courses are grade-level specific.  
 We will be adding Project Lead the Way in Fall of 2014  
 We will be offering an intro to computer programming class in fall 2014 for the first time.  
 Web Design  
 Webmastery  
 When we had the program, we offered one class. It was a computer programming class that was actually a dual credit which meant that we used the college textbook and syllabus. I has been 4 years since it has been offered so I do not remember the textbook that was used.  
 Yearbook

**16. What content is covered in core academic computer science courses? (Check all that apply.)**

Problem solving	64.5%
Ethical and social issues	56.7%
Graphics	56.7%
Web development	51.1%
Searching & sorting	46.1%
Hardware	45.5%
Programming constructs	42.5%
Operating systems	40.5%
Logic	39.4%
Databases and information retrieval	39.1%
Computer security	37.4%
Data structures	35.8%
Object oriented programming	34.6%
Testing and debugging	34.4%
Networks	33.0%
Analysis of algorithms	31.8%
Robotics	31.3%
Mobile Apps	28.8%
Numerical representation	26.0%
Security	25.1%
Cloud computing	21.2%

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Abstraction	20.4%
Software development life cycle	20.4%
Micro Controllers	8.4%
Other (please specify)*	3.9%

### 17. What content is covered in CTE courses? (Check all that apply.)

Web development	63.0%
Internet	60.3%
Graphics	57.9%
Problem solving	56.6%
Ethical and social issues	48.1%
Careers in computing	47.8%
Hardware	43.1%
Searching & sorting	40.7%
Databases & information retrieval	36.7%
Networks	35.4%
Computer security	34.7%
Programming constructs	32.3%
Testing and debugging	30.6%
Productivity software	30.0%
Logic	26.9%
Game programming	26.6%
Data structures	25.6%
Object oriented programming	21.5%
Analysis of algorithms	18.5%
Numerical representation	18.2%
Abstraction	11.8%
Micro controllers	10.4%
Other (please specify)*	5.7%

**APPENDIX: Responses to "Other"**

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**Question 16: What content is covered in core academic computer science courses? (Check all that apply.)**

None  
Office Programs  
I don't know  
Computer Concepts and Software Applications  
We co-op with SWOTC in Altus, OK for several of these  
Basic computer program usage such as power points and other programs like this  
Cant remember what was covered  
computer appliation software  
does not apply  
N/A  
Music Production  
Not Sure  
We have no Core academic computer science courses  
we do not offer core academic CS courses

**Question 17: What content is covered in CTE courses? (Check all that apply.)**

none  
I don't know  
AP Comp Sci Curriculum  
3D printing  
Computer Applications  
We co-op with SWOTC in Altus, OK for several of these  
Digital Interactive Multimedia  
MICrosoft Excel  
these apply to our robotics club  
N/A  
Don't teach CTE courses  
A little bit of everything is included in the A+ Cert class  
Program Applications  
what is CTE?  
All of our Computer Science courses are delivered through our CTE Department  
CTE courses not offered here  
We have no courses beyond the introductory course

